



# FEC2025

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## 30<sup>th</sup> IAEA FUSION ENERGY CONFERENCE

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13–18 OCTOBER **2025**

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 **CHENGDU**, PEOPLE'S REPUBLIC OF CHINA

**PROGRAMME AND CONFERENCE MATERIAL**

Organized by the:



Hosted by the People's Republic of China through the China Atomic Energy Authority (CAEA)

**30th IAEA  
Fusion Energy Conference  
13th - 18th October 2025  
Chengdu  
People's Republic of China**

**Programme & Conference Material**

## Introduction

The International Atomic Energy Agency (IAEA) fosters the exchange of scientific and technical results in fusion research and development through its series of Fusion Energy Conferences.

The 30th IAEA Fusion Energy Conference (FEC 2025) aims to provide a global forum for the exchange of scientific and technical results in fusion energy research and development on a range of themes, including experiments and theory for magnetic, inertial, and innovative confinement concepts, fusion technology and materials, and potential pathways to fusion energy.

According to the IAEA's [Fusion Device Information System](#) (FusDIS), as of 2025, there are almost 150 experimental fusion devices and testing facilities operating, under construction or being planned, and more than 20 fusion plant designs under development. Recent scientific and technical advances, coupled with a dynamic private sector, and the pressing concerns of climate change and energy security, have shifted the focus to addressing the remaining challenges. These include demonstrating the technological feasibility of fusion power and ensuring its safety and economic viability as a sustainable energy source.

The scope of FEC 2025 is, therefore, intended to reflect the priorities of this new era in fusion energy research, development, demonstration, and preparation to deployment. The conference aims to serve as a platform for sharing the results of research and development efforts in both the public and private sector, that have been shaped by these new priorities, and to thereby help in pinpointing worldwide advances in fusion experiments, theory, technology, engineering, materials, advanced concepts, safety, socioeconomics, and commercialization pathways. The conference will thus help in defining the way forward.

With the participation of international organizations as well as more than 50 countries and a great number of research organisations, academia, and private companies, it is expected that this conference will, like previous conferences in the series, serve to identify the possibilities and means for continuous and effective international collaboration in this area.

The [30th IAEA Fusion Energy Conference](#) is being hosted by the China Atomic Energy Authority (CAEA) from 13 to 18 October 2025. [Previous conferences in this series](#) were held in [Salzburg, Austria \(1961\)](#), [Culham, United Kingdom \(1965\)](#), [Novosibirsk, Russian Federation \(1968\)](#), [Madison, United States of America \(1971\)](#), [Tokyo, Japan \(1974\)](#), [Berchtesgaden, Germany \(1976\)](#), [Innsbruck, Austria \(1978\)](#), [Brussels, Belgium \(1980\)](#), [Baltimore, United States of America \(1982\)](#), [London, United Kingdom \(1984\)](#), [Kyoto, Japan \(1986\)](#), [Nice, France \(1988\)](#), [Washington DC, United States of America \(1990\)](#), [Würzburg, Germany \(1992\)](#), [Seville, Spain \(1994\)](#), [Montreal, Canada \(1996\)](#), [Yokohama, Japan \(1998\)](#), [Sorrento, Italy \(2000\)](#), [Lyon, France \(2002\)](#), [Vilamoura, Spain \(2004\)](#), [Chengdu, China \(2006\)](#), [Geneva, Switzerland \(2008\)](#), [Daejeon, Republic of Korea \(2010\)](#), [San Diego, United States of America \(2012\)](#), [St. Petersburg, Russian Federation \(2014\)](#), [Kyoto, Japan \(2016\)](#), [Ahmedabad, India \(2018\)](#), [Nice, France \(postponed from 2020 to 2021 and held online because of the global COVID-19 pandemic\)](#) [London, United Kingdom \(2023\)](#).

## Programme Committee

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Mainak Bandyopadhyay | India  
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Francesa Poli | ITER Organization  
Takahiro Suzuki | Japan  
Masaki Osakabe | Japan  
Ryosuke Kodama | Japan  
Hiroyasu Tanigawa | Japan  
Murakami Sadayoshi | Japan  
Jay Hyun Kim | Republic of Korea  
Eisyung Yoon | Republic of Korea  
Sergei Lebedev | Russian Federation  
Bel'kov Sergei Arkad'evich | Russian Federation  
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Michael Porton | UK  
Alex Creely | USA  
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Colleen Nehl | USA  
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Arnie Lumsdaine | USA  
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## Conference Secretariat

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**Danas Ridikas**

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Department of Nuclear Sciences and Applications  
International Atomic Energy Agency

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**Laura Wheatley**

Nuclear Power Technology Development Section | Division of Nuclear Power  
Department of Nuclear Energy  
International Atomic Energy Agency

### *Local Organisation:*

**Ning Shen**

**Haoyue Chen**

**Li Yang**

**Yang Chen**

Southwestern Institute of Physics  
Chengdu, People's Republic of China

## Conference Material

Contributed papers will be published electronically on the [IAEA Fusion Portal](#) under the FEC dedicated webpage as a part of the FEC material.

This book contains all synopses accepted for the conference, including their associated pre-print, presentation and poster. Synopses have been edited for style uniformity. The views expressed remain the responsibility of the named authors. No responsibility is held by the organizers for any material reproduced, or linked, in this book.

## IAEA Publications

All IAEA publications may be ordered from the

Sales and Promotion Unit,

International Atomic Energy Agency,

P.O. Box 100, A-1400 Vienna,

Austria Fax: +43 1 2600-29302

[sales.publications@iaea.org](mailto:sales.publications@iaea.org)

[www.iaea.org/Publications/index.html](http://www.iaea.org/Publications/index.html)

## Nuclear Fusion Journal

Participants have been invited to submit their paper for possible publication in the IAEA journal, [Nuclear Fusion](#). If your institution does not have access to the journal, pdfs of these FEC derived articles can be requested from [nf@iaea.org](mailto:nf@iaea.org).

Links on the abstract pages direct the reader to both the pre-print and the Nuclear Fusion journal, respectively.

## Participation in an IAEA Scientific Meeting

Governments of Member States and those organizations whose activities are relevant to the meeting subject matter are invited to designate participants in the IAEA scientific conferences and symposia. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Representatives of the press, radio, television or other information media and members of the public, the latter as “observers”, may also be authorized to attend, but without the right to take part in the proceedings.

Individuals interested in participating in any of the IAEA meetings should request information from the Government authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

### Working Language & Resolutions

**Working Language:** English. No simultaneous translation will be provided.

**Resolutions:** No resolutions may be submitted for consideration on any subject; no votes will be taken.

### Information for Participants

The [conference website](#) contains links to many helpful guides. Notably, the [Indico](#) conference system is used for all correspondence concerning contributions.

## Overview of Contributions

This book contains all abstracts accepted by the FEC programme committee. Note that abstracts have been edited for style uniformity.

### Overview of Contributions (as of July 28, 2025)

1 Keynote presentations

23 Overview talks

99 Regular talks

4 Rapporteur/Rapporteured talks

44 Overview posters

691 Regular posters

2 Post deadline talks

XX Post deadline poster

Overview posters will be exhibited during the entire conference. All oral presentations will also be displayed as posters according to the programme.

Rapporteur papers are identified by the letter “a” after the paper number. Rapporteured papers are identified by the letters “b” after the paper number.

## **Participation in an IAEA Scientific Meeting**

### **Topics**

#### **OV – Overview**

Device overview, programme overview, topic overview

#### **EX – Magnetic Fusion Experiments including Validation**

Experimental plasma physics including validation

##### **EX-C – Confinement**

Confinement and transport, including scenario development

##### **EX-S - Stability**

Stability, including disruptions, runaways, control, mitigation & consequences

##### **EX-W - Waves**

Plasma waves and energetic particle interactions

##### **EX-D - Divertor**

Divertor/SOL physics and general power handling

##### **EX-E - Edge Transient Control**

Edge transients, ELMs, mitigation & benign/no ELM scenarios, 3D-physics

##### **EX-M - Material Interactions**

Materials-plasma interactions

##### **EX-P - Pedestal , Core-edge, Turbulence**

Pedestal physics and core-edge integration, turbulence, L-H transition

##### **EX-H - Heating & Current Drive**

Heating and current drive physics, antenna-plasma interactions

## **TH - Magnetic Fusion Theory and Simulation**

Theory and simulation

### **TH-C - Confinement**

Confinement and transport, including scenario development

### **TH-S - Stability**

Stability, including disruptions, runaways, control, mitigation & consequences

### **TH-W - Waves**

Plasma waves and energetic particle interactions

### **TH-D - Divertor**

Divertor/SOL physics and general power handling

### **TH-E - Edge Transient Control**

Edge transients, ELMs, mitigation & benign/no ELM scenarios, 3D-physics

### **TH-M - Material Interactions**

Materials-plasma interactions

### **TH-P - Pedestal, Core-edge, Turbulence**

Pedestal physics and core-edge integration, turbulence, L-H transition

### **TH-H - Heating & Current Drive**

Heating and current drive physics, antenna-plasma interactions

## **TEC - Fusion Energy Technology**

Not plasma interaction

### **TEC-MTL - Material Developments**

Material Developments

### **TEC-IVC - In Vessel Components**

In Vessel Components

### **TEC-HCD - Heating & Current Drive**

Heating & Current Drive

### **TEC-ITR - ITER Technology**

ITER Technology

### **TEC-FNT - Fusion Nuclear Technology**

Includes nuclear science & technology research

### **TEC-CTL - Control**

Control software and hardware, control algorithms and theory, control demonstration, AI-driven control

### **TEC-R - Robotics and Remote Maintenance**

Robotics and Remote Maintenance

### **TEC-T - Tritium**

Tritium

### **IFE - Inertial Fusion Energy**

#### **IFE - Inertial Fusion Energy**

Experiments, theory and modelling, materials, power plant design, targets, drivers

### **IAC - Innovative and Alternative Fusion Concepts**

#### **IAC - Innovative and Alternative Fusion Concepts**

Experiments, theory and modelling, linear, non-magnetic, magneto-inertial, hybrid concepts

### **PWF - Pathway to Fusion**

#### **PWF - Pathway to Fusion**

Fusion plants (e.g., DEMO, pilot plants), timelines, roadmaps, supporting facilities, partnership frameworks, commercialization, supply chains, education and training, socioeconomic and environmental aspects, licensing

## **Conference Location**

The 30th Fusion Energy Conference (FEC2025) will be held at Tianfu International Conference Center in Chengdu, People's Republic of China. The Conference will be organized by the IAEA and hosted by the People's Republic of China through the China Atomic Energy Authority (CAEA).

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## FEC Programme 2025

Day Date	Tuesday October 14, 2025	Day Date	Wednesday October 15, 2025	Day Date	Thursday October 16, 2025	Day Date	Friday October 17, 2025	Day Date	Saturday October 18, 2025
09:00 - 11:00	<i>OV/1</i>  Opening	08:30 – 10:35	<i>OV/4</i>  Stellarator, Theory & Spherical Tokamak	08:30 – 10:10	<i>EX/3</i>  Long Pulse <i>P3</i> Posters	08:30 – 10:10	<i>TH/6</i> Next Generation Modelling <i>TEC/3</i> Operation Control <i>P5</i> Posters	08:30- 10:10	<i>EX/11</i>  Transport Barriers <i>P7</i> Posters
11:00 - 11:30	<i>FEC Technical Programme</i>	10:35 – 11:05	Coffee Break	10:10- 10:40	Coffee Break				
11:30 - 12:20	<i>OV/1</i>  Overview: Fusion Science & Technology	11:05 – 12:45	<i>TEC/1</i>  ITER Technology	10:40 – 12:20	<i>IFE/1</i>  Inertial Fusion Energy <i>P3</i> Posters	10:40 – 12:40	<i>EX/8 TH/7 &amp; PD/1</i> Scenarios & Control <i>TH/8 &amp; EX/9</i> Burning Plasma <i>P5</i> Posters	10:40 – 13:10	<i>OV/5</i>  Innovative Facilities and Technologies <i>P7</i> Posters
12:20 - 14:00	Lunch	12:45 – 14:00	Lunch	12:20 - 14:00	Lunch	12:40 - 14:00	Lunch	13:10 - 14:20	Lunch
		12:45 – 14:00	Lunch Event	12:20 – 14:00	Lunch Event	12:40 – 14:00	Lunch Event	13:10- 14:20	Lunch Event
14:00 - 16:05	<i>OV/2</i>  Overview: Tokamak Progress 1	14:00 – 15:40	<i>TH/1 &amp; EX/1</i>  Exhaust <i>P2</i> Posters	14:00 – 15:40	<i>EX/4 &amp; TH/3</i> Disruption & RE <i>TH/4 &amp; EX/5</i> Pedestal <i>P4</i> Posters	14:00 – 15:40	<i>TH/9 &amp; PD/2</i> Disruption, RE & Stellarator <i>TEC/4</i> Fusion Nuclear Technology <i>P6</i> Posters	14:20 – 16:00	<i>PWF/1</i>  Pathways to Fusion
16:05 - 16:35	Coffee Break	15:40 - 16:10	Coffee Break					16:00- 16:30	Coffee Break
16:35 - 18:40	<i>OV/3</i>  Overview: Tokamak Progress 2	16:10 – 17:50	<i>EX/2 &amp; TH/2</i>  Core-edge Integration <i>P2</i> Posters	16:10 – 18:10	<i>EX/6 TH/5 &amp; IAC/1</i> Exhaust & PFC & Control Materials <i>TEC/2 &amp; EX/7</i> <i>P4</i> Posters	16:10 – 18:10	<i>TH/10 &amp; EX/10</i> Tungsten <i>TEC/5 &amp; IAC/2</i> Enabling Technologies <i>P6</i> Posters	16:30 – 17:30	<i>Closing</i>

## Tuesday 14 October 2025

### O/1

### FEC Technical Programme

(11:00-11:30)

11:00	O/1-1	<b>TBC</b> Technical Programme Presentation	TBC
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### OV/1

### Overview 1: Fusion Science and Technology

Chairperson: Xuru Duan (China)  
Co-Chairperson: IAEA

(11:30-12:20)

11:30	OV/1-1	<b>J. Li</b> Overview of CRAFT project progress	China
11:55	OV/1-2	<b>P. Barabaschi</b> Progress of ITER and its value for fusion	ITER

### OV/2

### Overview 2: Tokamak Progress 1

Chairperson: Fernanda Rimini (UK)  
Co-Chairperson: IAEA

(14:00-16:05)

14:00	OV/2-1	<b>N. Vianello</b> Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activity	Italy
14:25	OV/2-2	<b>A. Moser</b> Overview of DIII-D research towards ITER and future Fusion Power Plants	USA
14:50	OV/2-3	<b>X. Gong</b> Overview of recent experimental results on EAST in support of ITER new research plan	China

15:15	OV/2-4	<b>J. Bucalossi</b> Overview of WEST contributions to the new ITER baseline and fusion power plant	France
15:40	OV/2-5	<b>J. Garcia</b> First JT-60SA plasma operation and plans in view of ITER and DEMO	France

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## OV/3

### Overview 3: Tokamak Progress 2

Chairperson: Rui Ding (China)  
Co-Chairperson: IAEA

(16:30-18:30)

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16:30	OV/3-1	<b>Y. Nam</b> Overview of KSTAR experiments and future plan	Korea
16:55	OV/3-2	<b>T. Pütterich</b> Overview of ASDEX Upgrade results	Germany
17:20	OV/3-3	<b>W. Zhong</b> HL-3 research towards high-performance plasma and power exhaust solution	China
17:45	OV/3-4	<b>C. Theiler</b> Progress and innovations in the TCV tokamak research programme	Switzerland
18:05	OV/3-4	<b>J. Hillesheim</b> Overview of Preparation for SPARC Q>1 and Retiring Physics Risks For ARC	USA

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**Wednesday 15 October 2025**

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## OV/4

### Overview 4: Stellarator, Theory and Spherical Tokamak

Chairperson: Francesca Poli (ITER Organization)  
Co-Chairperson: IAEA

(08:30-10:35)

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08:30	OV/4-1	<b>O. Grulke</b>	Germany
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08:55	OV/4-2	Overview of Wendelstein 7-X high-performance operation <b>K. Tanaka</b> Recent advances in plasma control and physics research in the large helical devices	Japan
09:20	OV/4-3	<b>R. Churchill</b> Overview of stellarator physics and engineering simulation and modelling for fusion pilot plant design and optimization	USA
09:45	OV/4-4	<b>F. Jenko</b> Towards Digital Twins of fusion systems	Germany
10:10	OV/4-5	<b>J. Harrison</b> Overview of the MAST Upgrade physics programme testing novel concepts at low aspect ratio to inform future devices	UK

## TEC/1

## ITER Technology

Chairperson: Hiroyasu Tanigawa (Japan)  
Co-Chairperson: IAEA

(11:05-12:45)

11:05	TEC/1-1	<b>S. Yoon</b> The 2024 new baseline ITER research plan	Korea
11:25	TEC/2-3	<b>A. Loarte</b> Change of wall material from beryllium to tungsten in the new ITER Baseline: Physics basis, implications for research plan and wall designs for its operational phases	ITER
11:45	TEC/2-2	<b>J. Reich</b> ITER Core Machine Assembly Progress	ITER
12:05	TEC/2-5	<b>C.H. Noh</b> Recovery of ITER sector modules from critical issues	ITER
12:25	TEC/2-4	<b>D. Marcuzzi</b> Achievement at the ITER Neutral Beam Test Facility and prospects for the R&D activities within the ITER research plan	Italy

## TH/1 & EX/1

## Exhaust

Chairperson: Fulvio Militello (UK)  
Co-Chairperson: IAEA

(14:00-15:40)

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14:00	TH/1-1	<b>B. Zhu</b> DivControlNN: A Game-Changer for Real-Time Divertor Plasma Detachment Control in Magnetic Fusion Devices	USA
14:20	EX/1-1	<b>K. Verhaegh</b> The physics basis for implementing Alternative Divertor Configurations on reactors	UK
14:40	TH/1-3	<b>H. Bufferand</b> Hierarchy of turbulent transport models with the SOLEDGE3X code	France
15:00	TH/1-2	<b>W. Zholobenko</b> Validated, global edge-SOL turbulence simulations in various ELM-free regimes	Germany
15:20	TH/1-4	<b>A. Shukla</b> Direct comparison of gyrokinetic and fluid scrape-off layer simulations	USA

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## EX/2 & TH/2

### Core-edge Integration

Chairperson: Alessandro Bortolon (USA)  
Co-Chairperson: IAEA

(16:10-17:50)

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16:10	EX/2-2	<b>C. Giroud</b> High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3	UK
16:30	EX/2-1	<b>M. Dunne</b> The physics of ELM-free regimes in EUROfusion tokamaks	Germany
16:50	EX/2-3	<b>D. Ernst</b> Advances in core-edge integration of low collisionality quiescent H-mode regimes relevant to burning plasmas	USA
17:10	EX/2-4	<b>F. Scotti</b> Pathways to improved core-edge integration for negative triangularity scenarios in the DIII-D Tokamak	USA
17:30	TH/2-1	<b>M. Schneider</b> Integrated Modelling activities in support of the ITER re-baseline	France

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## Thursday 16 October 2025

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### EX/3

### Long Pulse

Chairperson: Masaki Osakabe (Japan)  
Co-Chairperson: IAEA

(08:30-10:10)

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08:30	EX/3-1	<b>S. Bannmann</b> Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X	Germany
08:50	EX/3-4	<b>R. Dumont</b> WEST Long-pulse achievements in support of next-step fusion devices	France
09:10	EX/3-3	<b>G. Xu</b> Long pulse ELM-FREE H-Mode regime with feedback-controlled detachment under boronized metal wall in EAST	China
09:30	EX/3-2	<b>J. Huang</b> Development of steady-state operation scenarios with full tungsten limiter/divertor in ITER-relevant configuration on EAST	China
09:50	EX/3-5	<b>H. Kim</b> Development of high-performance long-pulse discharge in KSTAR	Korea

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### IFE/1

### Inertial Fusion Energy

Chairperson: Sylvie Jacquemot (France)  
Co-Chairperson: IAEA

(10:40-12:20)

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10:40	IFE/1-1	<b>Y. Arikawa</b> High gain fusion burning in inertial confinement fusion plasma	Japan
11:00	IFE/1-2	<b>S. Le Pape</b> Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results	France

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11:20	IFE/1-3	<b>N. Borisenko</b> Targets developed in the 21st century at the P.N. Lebedev Physical Institute of RAS to study the extreme matter physics using high-power laser facilities	Russia
11:40	IFE/1-4	<b>F. Wu</b> Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme	China
12:00	IFE/1-5	<b>J. Ogino</b> Development of innovative repeatable power laser for laser fusion	Japan

## EX/4 & TH/3

### Disruption and RE

Chairperson: Jay Hyun Kim (Korea)  
Co-Chairperson: IAEA

(14:00-15:40)

14:00	EX/4-1	<b>S. Sabbagh</b> First demonstration of disruption avoidance by real-time physics-based disruption event characterization and forecasting on KSTAR	USA
14:20	EX/4-2	<b>L. Zheng</b> Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST	China
14:40	EX/4-3	<b>E. Hollman</b> Characterization of runaway impact on instrumented sacrificial limiters on DIII-D	USA
15:00	TH/3-1	<b>C. Liu</b> Analysis and simulation of effective runaway electron mitigation using a passive coil in J-TEXT Tokamak	China
15:20	EX/4-4	<b>J. Levesque</b> Changes in disruption dynamics during the first operation of a Runaway Electron Mitigation Coil (REMC) on a tokamak	USA

**TH/4  
&  
EX/5****Pedestal**

Chairperson: Philip Snyder (USA)  
Co-Chairperson: IAEA

(14:00-15:40)

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14:00	TH/4-1	<b>J.K. Park</b> New understanding of resonant layer response via extended drift MHD	Korea
14:20	TH/4-2	<b>N. Lil</b> Transition from Bursting ELMs to Continuous Turbulence Fluctuations in High SOL Density Regimes	USA
14:40	EX/5-1	<b>S. Liu</b> First edge-localized mode suppression with lower hybrid waves on the EAST Tokamak	China
15:00	EX/5-2	<b>J. Kumar</b> Non-Inductive current drive at zero loop voltage using HCD PAM launcher on ADITYA-U	India
15:20	EX/5-3	<b>T. Odstrcil</b> Observation of pedestal ion temperature screening of high-Z impurities in the hybrid scenario on DIII-D	USA

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**EX/6  
&  
IAC/1****Exhaust and Control**

Chairperson: Alex Creely (USA)

(16:10-18:10)

Co-Chairperson: IAEA

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16:10	EX/6-1	<b>C. Killer</b> Drift flows impact island divertor operation in Wendelstein 7-X	Germany
16:30	EX/6-2	<b>C. Byun</b> Real-time feedback control of radiation front position for detachment in multi-device studies: application of machine learning on DIII-D and KSTAR	USA
16:50	TH/5-1	<b>E. Kaveeva</b> First SOLPS-ITER wide grid simulations of the ITER burning plasma scrape-off layer	Russia
17:10	EX/6-3	<b>E. Tonello</b>	Switzerland

17:30	TH/5-2	Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV <b>X. Ma</b> SOLPS-ITER Simulations of an X-point Radiator in the DIII-D High-beta Hybrid Plasmas	USA
17:50	IAC/1-1	<b>H. Gota</b> Breakthrough in Field-Reversed Configuration Formation and Sustainment via Neutral-Beam Injection in C-2W	USA

## TEC/2 & EX/7

### PFC and Materials

Chairperson: Arnie Lumsdaine (USA)  
Co-Chairperson: IAEA

(16:10-18:10)

16:10	TEC/2-1	<b>V. Lamaison</b> WEST operation - reliability and availability of a long pulse fusion tokamak	France
16:30	TEC/2-2	<b>M. Richou</b> Actively cooled plasma facing components design for W7-X and JT-60SA in support of the ITER divertor	France
16:50	TEC/2-3	<b>J. Coburn</b> Advancing Plasma-Facing Materials for Fusion Pilot Plants at DIII-D	USA
17:10	TEC/2-4a	<b>G.M. Polli</b> The Divertor Tokamak Test Facility: Machine design construction and commissioning	Italy
	TEC/2-4b	<b>S. Rocella</b> Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY	Italy
17:30	TEC/2-5	<b>J. Du</b> Performance evaluation of tungsten fiber-reinforced tungsten composites developed at SWIP for application in nuclear fusion reactors	China
17:50	EX/7-1	<b>D. Matveev</b> Analysis of fuel retention and recovery in JET with BE-W wall	Germany

## Friday 17 October 2025

### TH/6      Next Generation Modelling

Chairperson: Eisyung. Yoon (Korea)  
Co-Chairperson: IAEA

(08:30-10:10)

08:30	TH/6-1	<b>N. Aiba</b> H-mode operation scenarios in JT-60SA initial research phase predicted by integrated core-pedestal-SOL/divertor simulation	Japan
08:50	TH/6-2	<b>H. Meyer</b> UK STEP towards a fusion power plant plasma	UK
09:10	TH/6-3	<b>D. Kennedy</b> A TALE OF TWO (VISCO)CITIES Electromagnetic Turbulence and Transport Bifurcations: Implications for Next-Generation Fusion Power Plants	UK
09:30	TH/6-4	<b>R. Zhao</b> Global dispersion and nonlinear dynamics in plasmas modeled for JT-60U strongly reversed magnetic shear configuration exhibiting a signature of ITBS from L-Mode characteristics	Japan
09:50	TH/6-5	<b>K. Kim</b> Integrated Modeling of DIII-D Super H-Mode using Improved Pedestal Physics and Integrated Core-Pedestal-Boundary Physics to Optimize Fusion Performance	USA

### TEC/3      Operation Control

Chairperson: Michael Porton (UK)  
Co-Chairperson: IAEA

(08:30-10:10)

08:30	TEC/3-1	<b>Y. Morishita</b> Development of a data assimilation system ASTI toward DIGITAL TWIN control of fusion plasma	Japan
08:50	TEC/3-2	<b>M. Kostuk</b> Automatic Between-shot Kinetic Equilibria and Neutral Beam-Heat Load on DIII-D Using Supercomputers	USA
09:10	TEC/3-3	<b>E. Kolemen</b>	USA

09:30	TEC/3-4	Artificial Intelligence for tokamak fusion: Advancements in diagnostics, control, and scenario optimization <b>S. Jachmich</b>	ITER
09:50	TEC/3-5	ITER disruption mitigation system design and application strategy <b>A. Krasilnikov</b>	Russia
		TRT plasma control complexes conceptual design on the base of the ITER fusion technology development	

EX/7  
TH/7  
&  
PD/1

## Scenarios and Control

Chairperson: Wulyu. Zhong (China)  
Co-Chairperson: IAEA

(10:40-12:40)

10:40	EX/7-1	<b>T. Wakatsuki</b> Development of Low Inductive Electric Field Plasma Start-up in JT-60SA	Japan
11:00	TH/7-1	<b>H. Kim</b> Multi-machine validation of plasma initiation modelling and prospects for future devices	Korea
11:20	EX/7-2	<b>S. Inoue</b> Development of equilibrium control simulator and experimental validation of advanced ISO-Flux equilibrium control during the first operational phase of JT-60SA	Japan
11:40	EX/7-3	<b>T. Kinoshita</b> Direct control of turbulence for improved plasma confinement	Japan
12:00	EX/7-4	<b>M. Baruzzo</b> Plasma control experiments in JET deuterium-tritium plasmas	Italy
12:20	PD/1-1	<b>TBC</b> TBC	TBC

**TH/8  
&  
EX/8**

**Burning Plasma**

Chairperson: Alexander Melnikov (Russia)  
Co-Chairperson: IAEA

(10:40-12:40)

10:40	TH/8-1	<b>J. Wang</b> Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas	Japan
11:00	TH/8-1	<b>F. Zonca</b> Theory and simulation of phase space transport in burning plasma	Italy
11:20	EX/8-2	<b>S. Sharapov</b> Fusion alpha-particle -driven Alfen eigenmodes in JET DT plasmas: experiments and theory	UK
11:40	TH/8-3	<b>A. Könies</b> Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations	Germany
12:00	EX/8-2	<b>F. Turco</b> Simulation of alpha power dynamics in DIII-D	USA
12:20	EX/8-3	<b>G. Xiao</b> Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies	China

**TH/9  
&  
PD/2**

**Disruption, RE, Stellarator**

Chairperson: Murakami Sadayoshi (Japan)  
Co-Chairperson: IAEA

(14:00-15:40)

14:00	TH/9-1	<b>D. Hu</b> JOEKE simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs	China
14:20	TH/9-2	<b>H. Bergström</b> Hybrid kinetic-MHD studies of runaway electron beam termination events	Germany
14:40	TH/9-3	<b>Y. Lee</b>	Korea

15:00	TH/9-4a	Modelling of mildly relativistic runaway electrons - development of reduced-kinetic model and validation in KSTAR ohmic startup <b>C. Zhu</b>	China
	TH/9-4b	A novel method to optimize omnigenity like quasisymmetry for stellarators <b>J.L.V. Garasa</b>	Spain
15:20	PD/2-1	Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors <b>TBC</b> TBC	TBC

## TEC/4

## Fusion Nuclear Technology

Chairperson: Moises Weber (Spain)  
Co-Chairperson: IAEA

(14:00-15:40)

14:00	TEC/4-1	<b>R. Villari</b> Neutronics for ITER nuclear phase: insights and lessons learnt from JET DT operation	Italy
14:20	TEC/4-2	<b>E. Bernard</b> Anticipating tritium impact and transfer in fission and fusion power plants	France
14:40	TEC/4-3	<b>I. Palermo</b> Overview of the DCLL breeding blanket for HELIAS 5-B and further steps towards a novel QI device	Spain
15:00	TEC/4-4	<b>Y.H. Park</b> Experimental study on tritium release from Li <sub>2</sub> TiO <sub>3</sub> pebbles as tritium breeder through international collaboration between KOREA and CHINA	Korea
15:20	TEC/4-5	<b>T. Akagi</b> Accomplishment of high duty cycle beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) at 5 MeV, 125 mA D <sup>+</sup>	Japan

## TH/10 & EX/9

### Tungsten

Chairperson: Marco Wischmeier (Germany)  
Co-Chairperson: IAEA

(16:10-18:10)

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16:10	TH/10-1	<b>D. Fajardo</b> Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER	Germany
16:30	EX/9-1	<b>Y. Corre</b> Testing tungsten plasma facing components in WEST and AUG tokamaks: Lessons for ITER	France
16:50	TH/10-2	<b>S.G. Baek</b> Numerical modelling and experimental assessment of RF sheath generation due to far-field RF electric field	USA
17:10	TH/10-3	<b>H. Kumpulainen</b> Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas	Germany
17:30	EX/9-2	<b>J. Hobirk</b> Tungsten limiter Start-up experiments in different boronization states in support of ITER	Germany
17:50	EX/9-3	<b>S. Kim</b> Developing long pulse hybrid scenario in DIII-D and KSTAR for W-compatible steady-state operation toward ITER	USA

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## TEC/5 & IAC/2

### Enabling Technologies

Chairperson: Ge Zhuang (China)  
Co-Chairperson: IAEA

(16:10-18:10)

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16:10	TEC/5-1	<b>R. Skilton</b> Overview of recent results in research tackling remote maintenance challenges of future fusion energy devices	UK
16:30	TEC/5-2	<b>B. Sorbom</b> Qualification, Fabrication, and Commissioning of High-Temperature Superconducting Magnets for Compact Fusion	USA
16:50	TEC/5-3	<b>K. Tsuchiya</b>	Japan

17:10	TEC/5-4a	Performance of JT-60SA superconducting magnet operation in integrated commissioning test <b>T. Shinya</b>	Japan
	TEC/5-4b	First performance test of multi-frequency gyrotron for ITER and fusion devices <b>H. Yamazaki</b>	Japan
17:30	TEC/5-5	Results of electron cyclotron heating and current drive system operation in the integrated commissioning phase on JT-60SA <b>A. Jha</b>	India
17:50	IAC/2-1	Progress towards development of prototype radio frequency source of ITER ion cyclotron resonance heating system <b>Y. Xu</b> Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device	China

## Saturday 18 October 2025

### EX/11

### Transport Barriers

Chairperson: Eleonora Viezzer (Spain)  
Co-Chairperson: IAEA

(08:30-10:10)

08:30	EX/11-1	<b>C. Maggi</b> Core and edge transport of scenario with internal transport barrier in tritium and deuterium-tritium plasmas in JET with BE/W wall	UK
08:50	EX/11-2	<b>A.M. Garofalo</b> Achievement of a high-density, high-confinement, and high beta tokamak plasma regime for ITER and FPP	USA
09:10	EX/11-3	<b>Y. Jeon</b> Development of high poloidal beta scenario for long-pulse operation in collaboration between DIII-D and KSTAR	Korea
09:30	EX/11-4	<b>L. Frassinetti</b> Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER.	Sweden
09:50	EX/11-5	<b>T. Wilks</b>	USA

## OV/5

## Innovative Facilities and Technologies

Chairperson: Hidenobu Takenaga (Japan)

(10:40-13:10)

Co-Chairperson: IAEA

10:40	OV/5-1	<b>R. Lawless</b> Overview of UKAEA's integrated fusion technology programmes, emphasising a digital first strategy	UK
11:05	OV/5-2	<b>J. Rapp</b> Raising fusion readiness by addressing plasma-material interactions and fusion nuclear science with linear plasma devices, an overview	USA
11:30	OV/5-3a	<b>A. Ibarra</b> Overview of the DONES Experimental Programme	Spain
	OV/5-3b	<b>K. Hasegawa</b> Overview of achievements and outlook of the IFMIF/EVEDA project	Japan
11:55	OV/5-4	<b>O. Asunta</b> Overview of ST40 results and future: expanding the physics basis of high-field spherical tokamaks	UK
12:20	OV/5-5	<b>N. Bakharev</b> Recent advances at the Globus-M2 tokamak	Russia
12:45	OV/5-6	<b>Y. Sentoku</b> Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme	Japan

## PWF/1

## Pathways to Fusion

Chairperson: Takashi Inoue (Japan)

(14:20-16:00)

Co-Chairperson: IAEA

14:20	PWF/1-1	<b>F. Warmer</b>	Germany
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## Overview Of Craft Project Progress

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## Progress Of Iter And Its Value For Fusion

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## Overview Of DIII-D Research Towards ITER And Future Fusion Power Plants

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# **[Ov Poster Twin] Raising Fusion Readiness By Addressing Plasma-Material Interactions And Fusion Nuclear Science With Linear Plasma Devices, An Overview.**

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## Overview Of WEST Contributions To The New ITER Baseline And Fusion Power Plants

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# First JT-60SA Plasma Operation And Plans In View Of ITER And DEMO

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## [Ov Poster Twin] Overview Of The KSTAR Experiments And Future Plan

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## **[Ov Poster Twin] Overview Of UKAEAâS Integrated Fusion Technology Programmes, Emphasising A Digital First Strategy**

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IAEA-CN-316-3003

Materials: via Indico sever:



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## **[Ov Poster Twin] Overview Of DIII-D Research Towards ITER And Future Fusion Power Plants**

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IAEA-CN-316-3396

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## Overview Of Asdex Upgrade Results

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IAEA-CN-316-3052

Materials: via Indico sever:



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## **[Ov Poster Twin] Overview Of Recent Experimental Results On EAST In Support Of ITER New Research Plan**

**A. M. Garofalo, Alberto Loarte, Annika Ekedahl, Christopher Holcomb, Jinping Qian, Juan Huang, Rajesh Maingi, Richard Pitts, Tom Wauters, Wilkie Choi, Xianzu Gong**

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IAEA-CN-316-3400

Materials: via Indico sever:



## HL-3 Research Towards High-Performance Plasma And Power Exhaust Solution

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IAEA-CN-316-3258

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## [Ov Poster Twin] Recent Advances In Plasma Control And Physics Research In The Large Helical Device

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IAEA-CN-316-3384

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# Progress And Innovations In The TCV Tokamak Research Programme

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IAEA-CN-316-2855

Materials: via Indico sever:



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# **[Ov Poster Twin] Results From The Last DD And DT JET Campaigns In The Framework Of The Eurofusion Tokamak Exploitation Activity**

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IAEA-CN-316-3387

Materials: via Indico sever:



## Overview Of Preparation For Sparc Q>1 And Retiring Physics Risks For Arc

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IAEA-CN-316-3352

Materials: via Indico sever:



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# **[Ov Poster Twin] Strategic Plan To Demonstrate Heatwave-Driven Laser Fusion With Fast Ignition Scheme**

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## [Ov Poster Twin] Progress And Innovations In The TCV Tokamak Research Programme

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## [Ov Poster Twin] Recent Advances At The Globus-M2 Tokamak

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IAEA-CN-316-3389

Materials: via Indico sever:



## [Ov Poster Twin] Towards Digital Twins Of Fusion Systems

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IAEA-CN-316-3390

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## [Ov Poster Twin] Overview Of Achievements And Outlook Of The Ifmif/Eveda Project

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## [Ov Poster Twin] Overview Of Asdex Upgrade Results

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## [Ov Poster Twin] Overview Of The Dones Experimental Programme

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IAEA-CN-316-3395

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## **[Ov Poster Twin] Overview Of WEST Contributions To The New ITER Baseline And Fusion Power Plants**

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IAEA-CN-316-3397

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# **[Ov Poster Twin] Overview Of Stellarator Physics And Engineering Simulation And Modeling For Fusion Pilot Plant Design And Optimization**

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IAEA-CN-316-3398

Materials: via Indico sever:



## [Ov Poster Twin] Overview Of Wendelstein 7-X High-Performance Operation

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IAEA-CN-316-3399

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## **[Ov Poster Twin] Overview Of St40 Results And Future: Expanding The Physics Basis Of High-Field Spherical Tokamaks**

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IAEA-CN-316-3401

Materials: via Indico sever:



## **[Ov Poster Twin] Overview Of Preparation For Sparc Q>1 And Retiring Physics Risks For Arc**

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IAEA-CN-316-3402

Materials: via Indico sever:



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## [Ov Poster Twin] HL-3 Research Towards High-Performance Plasma And Power Exhaust Solution

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IAEA-CN-316-3403

Materials: via Indico sever:



# Spherical Tokamak Physics Research In Preparation For The Operation Of Nstx-U

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Materials: via Indico sever:



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# **Towards High Performance Operation Of The Hsx Stellarator**

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IAEA-CN-316-2655

Materials: via Indico sever:



# **An Overview Of The First Experimental Results With Divertor Configuration Discharges In The Ktm Tokamak**

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# **JOREK Contributions To The Predictive Understanding Of Transient Phenomena In Future Tokamaks And Stellarators**

**Matthias Hoelzl**

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IAEA-CN-316-2679

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# The Divertor Tokamak Test Project: Progress Towards The Initial Operation

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IAEA-CN-316-2790

Materials: via Indico sever:



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# STEP Exhaust System " Architecture And Technology Development Overview

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IAEA-CN-316-2813

Materials: via Indico sever:



# Transport In High-Performance Plasmas Of The Tj-Ii Stellarator: From First-Principles Simulations To Experimental Validation

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# Upgrading DIII-D To Close The Gaps To Future Fusion Reactors

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## Overview Of Exl-50U Experiments: Addressing Key Physics Issues For Future Spherical Torus Reactors

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## Early Neutron Source Ifmif-Dones: Status And Validation Activities Phase

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## Progress Of Research On The Ktx Reversed Field Pinch

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## **Overview Of R&D Activities Within Iferc In Support Of Fusion Development In The Context Of The Broader Approach Agreement Phase Ii**

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IAEA-CN-316-3102

Materials: via Indico sever:



# Progress Of Proton-Boron Research For Fusion Energy In China

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Materials: via Indico sever:



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## T-15Md: Mission And Recent Experimental Results

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IAEA-CN-316-3142

Materials: via Indico sever:



## Structural Design Of The Negative Triangularity Spherical Tokamak (Ntst)

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Materials: via Indico sever:



## Overview Of The CFETR Prototype Tf Coil

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Materials: via Indico sever:



## Advances In Physics And Applications Of 3D Magnetic Perturbations On The J-Text Tokamak

Nengchao Wang, Yonghua Ding, Zhongyong Chen, Donghui Xia, Zhoujun Yang, Zhipeng Chen, Wei Zheng, Wei Yan, Da Li, Song Zhou, Chengshuo Shen, Zhengkang Ren, Feiyue Mao, Yangbo Li, Xixuan Chen

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Materials: via Indico sever:



## The Divertor Tokamak Test Facility Research Plan

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IAEA-CN-316-3323



Materials: via Indico sever:

## Recent Progress On The Sunist-2 Spherical Tokamak

**Binbin Wang, Long Zeng, Menghua Yang, Rui Chen, Shouzhi Wang, Tao Xin, Tingzhi Chang, Ximan Li, Yi Tan, Yuhang Luo, Yunxiao Wei, Zhe Gao, Zhengbo Cheng, Zichong Song**

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IAEA-CN-316-3327

Materials: via Indico sever:



# Controlled Nuclear Fusion For The Energy Transition, Health, And Industry

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Materials: via Indico sever:



# Global Fluid Turbulence Simulations Of Pedestal Relaxation Events In The I-Mode Regime With Grillix

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## Research At The Kurchatov Institute In Support Of The Creation Of A Hybrid Fusion-Fission System

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Materials: via Indico sever:



## Confinement Property In The JT-60SA First Operational Phase

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# Gyrokinetic Studies On The Stabilization Of High Field Axisymmetric Magnetic Mirrors

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IAEA-CN-316-2652

Materials: via Indico sever:



## Effects Of Lithium-Coating Wall Conditions On Turbulent Transport In EAST Electron Heating Dominant Plasmas

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## Impurity Accumulation And Radiation Dynamics In Advanced Scenarios In W7-X

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Materials: via Indico sever:



## Simulations Of The Interactions Between Elms And Edge Turbulences On Fusion Reactor Scale Facilities

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Materials: via Indico sever:



# **Validating Physics-Based (Astra/Transp), Data-Driven (D3D+Aug), And Physics+Data Hybrid Models For Quantitatively Accurate Yet Generalizable Guidance For ITER Operators**

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# **Nondimensional Confinement Scaling In Similar Negative Triangularity Plasmas On The DIII-D And TCV Tokamaks**

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IAEA-CN-316-2625

Materials: via Indico sever:



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## Three-Dimensional Nonlinear Modeling Of Elm Dynamics With Biasing In The Hl-3 Tokamak

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IAEA-CN-316-3131

Materials: via Indico sever:



# Experimental Study On Configuration Dependence Of Turbulent Transport On LHD

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IAEA-CN-316-2712

Materials: via Indico sever:



## Extracting The Nearest Canonical Equilibrium Distribution Via Natural Gradient Descent Method

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IAEA-CN-316-3151

Materials: via Indico sever:



# **Fusion Studies With Small And Tabletop Plasma Focus Devices: Investigations On New Operational Regimes, Non-Equilibrium Thermodynamics, Extreme Material Conditions, And Biological Effects**

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IAEA-CN-316-3348

Materials: via Indico sever:



# Multi-Machine Studies Of Low-Z Benign Termination Of Runaway Electron Beams And Extrapolation To ITER

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IAEA-CN-316-2818

Materials: via Indico sever:



# Experimental Identification Of Coexisting Local And Non-Local Turbulence

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Materials: via Indico sever:



# Exploring Enhanced Plasma Performance After Pellet Injections Via Rotational Transform Modulation In The Tj-Ii Stellarator

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IAEA-CN-316-2803

Materials: via Indico sever:



# Investigation Of Plasma Parameters In Sawtooth Oscillation By Absolute Intensity Of Soft X-Ray Emission In JT-60SA Integrated Commissioning Phase

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IAEA-CN-316-2793

Materials: via Indico sever:



## Interpreting Structures Observed In Pellet Ablation Profiles In The Stellarator Tj-Ii

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Materials: via Indico sever:



## Applications Of In-Shot Continuous NBI Control System To Fire Mode In KSTAR

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Materials: via Indico sever:



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# Investigation Of The Magnetic Flux Pumping Effect In MAST Upgrade

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IAEA-CN-316-2794

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## Validation Of Gkeyll Gyrokinetic Turbulence Simulations Against TCV Experimental Data And Triangularity Physics

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IAEA-CN-316-3174

Materials: via Indico sever:



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## Overview Of Wham Diagnostic Techniques And Realta Fusion Digital Validation Efforts

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IAEA-CN-316-2647

Materials: via Indico sever:



# **Tungsten (W) Impurity Reduction By Icrh In A High Power And High Performance H-Mode Discharge On EAST**

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IAEA-CN-316-2676

Materials: via Indico sever:



DRAFT

## First Results From Wham And The Realta Fusion Tandem Mirror Development Path

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Materials: via Indico sever:



# Numerical Analysis Of Electron Distribution Function Under Electron Cyclotron Heating During Tokamak Start-Up

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Materials: via Indico sever:



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## Linear And Quasi-Linear Toroidal Modeling Of Resonant Magnetic Perturbations During Elms Mitigation In HL-3

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IAEA-CN-316-3206

Materials: via Indico sever:



## Ntst, A Negative Triangularity Spherical Tokamak

**Binbin Wang, Long Zeng, Menghua Yang, Qinglei Jia, Rui Chen, Shouzhi Wang, Tengfei Shi, Ximan Li, Xuesong Ma, Yi Tan, Yunxiao Wei, Zhe Gao, Zhengbo Cheng, Zichong Song**

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IAEA-CN-316-3334

Materials: via Indico sever:



## Comparison Between Gyrokinetic Simulations And Experiments In The Lithium Tokamak Experiment-Ã (Ltx-Ã)

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IAEA-CN-316-3175

Materials: via Indico sever:



## Self-Organized Frc Formation In Mirror Field Orthogonal To The Axis Of Counter-Injected Plasmoids

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IAEA-CN-316-3214

Materials: via Indico sever:



## **Neutron-Physical Characteristics Of Blanket Of Hybrid Fusion Neutron Source Based On Solution Of Thorium Nitrate And Minor Actinides In Heavy Water**

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IAEA-CN-316-2621

Materials: via Indico sever:



## Novel Soft X-Ray Multi-Energy Camera To Study Thermal Plasmas At WEST

**Tullio Barbui**

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IAEA-CN-316-2641

Materials: via Indico sever:



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# Impact Of Impurities On Energy Confinement Bifurcation At Density Above The Greenwald Limit In DIII-D High-Betap Plasmas

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IAEA-CN-316-2643

Materials: via Indico sever:



# Advanced Magnetic Plasma Control Enabled By Reinforcement Learning

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IAEA-CN-316-2645

Materials: via Indico sever:



DRAFT

## **Development Of Predictive Rotation Models For ITER-Relevant Plasma Conditions On The Asdex Upgrade And DIII-D Tokamaks**

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IAEA-CN-316-2667

Materials: via Indico sever:



## **Turbulence And Flow Dynamics Approaching The Density Limit In L-Mode Plasmas At DIII-D**

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IAEA-CN-316-2687

Materials: via Indico sever:



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## Regime Of Electron Internal Transport Barrier In High-Density NBI Heated Plasmas Of Heliotron J

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IAEA-CN-316-2696

Materials: via Indico sever:



## Pulse Design Simulator For JT-60SA

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IAEA-CN-316-2720

Materials: via Indico sever:



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## Intermittent Merging Operations Of Spherical Tokamak Plasmas For Reconnection Heating And Helicity Injection

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IAEA-CN-316-2724

Materials: via Indico sever:



## Bifurcated Particle Transport States Driven By Regulatory Energetic Ions In LHD Plasmas

**Masaki Nishiura, Shinsuke Satake, Masanori Nunami, Akihiro Shimizu, Takeshi Ido, Mikiro Yoshinuma, Hiroyuki Yamaguchi, Hideo Nuga, Ryohma Yanai, Keiji Fujita, Mirko Salewski**

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IAEA-CN-316-2729

Materials: via Indico sever:



# A Low-Cost Gyrokinetic Code For Interpretive Transport Analysis Of Tokamak Experiments

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IAEA-CN-316-2732

Materials: via Indico sever:



# **Cql3D-M, A 3D Nonlinear, Bounce-Averaged Fokker-Planck Collision Model Coupled With Neutrals For Magnetic Mirrors, With Fusion Applications**

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IAEA-CN-316-2735

Materials: via Indico sever:



## Gyrokinetic Linear Simulation Of Hot Ion Mode In Globus-M2 Spherical Tokamak

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IAEA-CN-316-2755

Materials: via Indico sever:



## Plasma-Neutral Interaction Studies With Openmc

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IAEA-CN-316-2756

Materials: via Indico sever:



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## Discovery Of Cross-Scale Nonlinear Interaction And Bifurcation In Multi-Scale Turbulence In LHD Plasma

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IAEA-CN-316-2778

Materials: via Indico sever:



# Progress In Multiple-Mirror Plasma Confinement At The Gol-Nb Facility

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IAEA-CN-316-2800

Materials: via Indico sever:



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## Measurements Of Toroidal Rotation Velocity In Tuman-3M Tokamak In NBI And H-Mode Regimes

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IAEA-CN-316-2809

Materials: via Indico sever:



## Utilizing A Visible Camera In The First Operation Phase(S) Of A Fusion Device

**Tamas Szepesi, Alfredo Pironti, Attilia Buzas, Carlo Sozzi, Daniel Imre Refy, Domenico Frattolillo, Federico Fiorenza, Gabor CSEH, Gabor Kocsis, Gianmaria De Tommasi, Maiko Yoshida, Massimiliano Mattei, Matteo Iafrati, Tomohide Nakano, William Bin, Daria Ricci**

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IAEA-CN-316-2811

Materials: via Indico sever:



# JET Hybrid Scenario Development In D-T For Impurity Screening Study

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IAEA-CN-316-2814

Materials: via Indico sever:



## **Dimensional Isotope Scaling Of Heat And Particle Transport Between JET Deuterium And Tritium L-Mode Plasmas**

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IAEA-CN-316-2821

Materials: via Indico sever:



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# Operating Beyond The Greenwald Density Limit In Negative Triangularity Plasmas On DIII-D Tokamak

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IAEA-CN-316-2823

Materials: via Indico sever:



# Density Limit Disruption Induced By Core-Localized Alfvenic Ion Temperature Gradient Instabilities In A Toroidal Plasma

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IAEA-CN-316-2831

Materials: via Indico sever:



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## Observation Of Fluctuation-Induced Particle Transport Phenomena In The Rt-1 Levitated Dipole

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IAEA-CN-316-2891

Materials: via Indico sever:



## Pumping Requirements For Core Plasma Performance In STEP Using Jintrac

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IAEA-CN-316-2899

Materials: via Indico sever:



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## Overview Of The Physics Design Of The Ehl-2 Spherical Torus For Proton-Boron Fusion

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IAEA-CN-316-2989

Materials: via Indico sever:



# Investigation Of High Q L-Mode Plasma Operation Sustained By Enhanced Pellet Fueling In ITER

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IAEA-CN-316-3025

Materials: via Indico sever:



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## Developing Machine Learning Facilitated Pedestal Models

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IAEA-CN-316-3029

Materials: via Indico sever:



# Non-Ideal And Shaping Effects In Extended-MHD Simulations Of ELM-Free Tokamak Plasmas

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IAEA-CN-316-3042

Materials: via Indico sever:



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## Lawson Machine 26: An Update On Recent Magnetized Target Fusion Compression Results

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IAEA-CN-316-3090

Materials: via Indico sever:



## Progress In First-Principles Boundary Simulations Of Plasma Turbulence And Neutral Dynamics With The Gbs Code

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IAEA-CN-316-3135

Materials: via Indico sever:



# **Coupled Particle-MHD Simulations Of Interactions Between Edge Localized Modes And Neutrals And Impurities Using JOREK Code**

**Zhe Liang**

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IAEA-CN-316-3148

Materials: via Indico sever:



## Mitigation Of Elm By 3D Magnetic Perturbations In Hl-3/Hl-2A Tokamaks

Guangzhou Hao, Guanqi Dong, Jie HUANG, Lian Wang, Marina Becoulet, Neng Zhang,  
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Neng Zhang, Tengfei Sun, Yueqiang Liu, *haogz@swip.ac.cn*

IAEA-CN-316-3160

Materials: via Indico sever:



# Kinetic Modeling Of Tungsten Transport Induced By Low-N X-Point Mode

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IAEA-CN-316-3192

Materials: via Indico sever:



## Observation Of MHD Stabilized Operation During NBI-Sustained Discharge In 17 T Axisymmetric Mirror

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IAEA-CN-316-3222

Materials: via Indico sever:



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## Simulation Of Effect Of Poloidal Injection Geometry On Li-Pellet Triggered Elm Under Bout++ Framework

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IAEA-CN-316-3261

Materials: via Indico sever:



# **Influence Of Ion Temperature On The Dynamics Of Unidirectional Current Carrying Filamentary Elm Blobs In The Edge Region Of A Tokamak**

**Souvik Mondal**

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IAEA-CN-316-3270

Materials: via Indico sever:



## Simulation Study Of The Effect Of Impurities On The Nonlinear Dynamic Process Of Edge-Localized-Modes

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IAEA-CN-316-3292

Materials: via Indico sever:



# **Turbulence-Transport Coupling Simulation Study Of The Elm Dynamics From High Recycling Attached Regime To Impurity Seeded Detachment Regime Within Edge Plasma Coupling Simulation (Epcs) Framework**

**TianYuan Liu**

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IAEA-CN-316-3336

Materials: via Indico sever:



## **Bout++ Simulation Study Of The Effect Of Resonant Magnetic Perturbation On The Turbulence Transport**

**Shifeng MAO, Ziming Zhen, Minyou Ye**

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IAEA-CN-316-3356

Materials: via Indico sever:



## Overview Of The MAST Upgrade Physics Programme: Testing Novel Concepts At Low Aspect Ratio To Inform Future Devices

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IAEA-CN-316-2808

Materials: via Indico sever:



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# **[Regular Twin Poster] Breakthrough In Field-Reversed Configuration Formation And Sustainment Via Neutral-Beam Injection In C-2W**

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IAEA-CN-316-3440

Materials: via Indico sever:



## **[Regular Twin Poster] Construction Progress Of Chinese First Quasi-Axisymmetric Stellarator (Cfqs) And Preliminary Results In The Cfqs-Test Device**

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IAEA-CN-316-3494

Materials: via Indico sever:



## The 2024 New Baseline ITER Research Plan

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IAEA-CN-316-3144

Materials: via Indico sever:



## **[Regular Twin Poster] High Pedestal Pressure Path To High Fusion Performance Leveraging The New "Shape And Volume Rise" Divertor On DIII-D**

**Alan Hyatt, Amanda Hubbard, Andreas Holm, Andrew Nelson, Christopher Holcomb, Theresa Wilks**

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IAEA-CN-316-3497

Materials: via Indico sever:



## ITER Core Machine Assembly Progress

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IAEA-CN-316-3368

Materials: via Indico sever:



**[Regular Twin Poster] Peeling Limited Pedestals In JET, MAST-U And TCV: Effect Of Density And Isotope Mass In Deuterium And Tritium-Rich Plasma On Pedestal Structure And Stability And Validation Of Pedestal Predictions For ITER.**

**Lorenzo Frassinetti**

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IAEA-CN-316-3498

Materials: via Indico sever:



# **Change Of Wall Material From Beryllium To Tungsten In The New ITER Baseline: Physics Basis, Implications For Research Plan And Wall Designs For Its Operational Phases**

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IAEA-CN-316-2766

Materials: via Indico sever:



# **[Regular Twin Poster] Core And Edge Transport Of Scenario With Internal Transport Barrier In Tritium And Deuterium-Tritium Plasmas In JET With Be/W Wall**

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IAEA-CN-316-3499

Materials: via Indico sever:



## **Achievement At The ITER Neutral Beam Test Facility And Prospects For The R&D Activities Within The ITER Research Plan**

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IAEA-CN-316-3020

Materials: via Indico sever:



# **[Regular Twin Poster] Achievement Of A High-Density, High-Confinement, And High Beta Tokamak Plasma Regime For ITER And FPP**

**A. M. Garofalo**

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IAEA-CN-316-3500

Materials: via Indico sever:



## Recovery Of ITER Sector Modules From Critical Issues

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IAEA-CN-316-2875

Materials: via Indico sever:



# **[Regular Twin Poster] Development Of High Poloidal Beta Scenario For Long-Pulse Operation In Collaboration Between DIII-D And KSTAR**

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IAEA-CN-316-3501

Materials: via Indico sever:



## Simulating The Oxygen Emission From ADITYA-U Tokamak Using Various Spectroscopic Models

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IAEA-CN-316-3234

Materials: via Indico sever:



# Current Rearrangement In Merging Start-Up Of Spherical Tokamak Plasmas

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IAEA-CN-316-2713

Materials: via Indico sever:



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# **Adaptive Energy-Sensitive X-Ray Technology For Long-Pulse Operation Of Magnetically Confined Thermal And Nonthermal Plasmas**

**Luis F. Delgado-Aparicio**

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IAEA-CN-316-2644

Materials: via Indico sever:



## Investigation Of Broadband Fluctuation-Induced Inward Transport At The Edge Of Hl-2A NBI Heated Plasma

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IAEA-CN-316-2840

Materials: via Indico sever:



## Determination Of W Characteristics In WEST By Means Of Extreme Uv Emission And Artificial Intelligence

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IAEA-CN-316-2746

Materials: via Indico sever:



# The Physics Basis For Implementing Alternative Divertor Configurations On Reactors

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IAEA-CN-316-3088

Materials: via Indico sever:



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# **[Regular Poster Twin] Change Of Wall Material From Beryllium To Tungsten In The New ITER Baseline: Physics Basis, Implications For Research Plan And Wall Designs For Its Operational Phases**

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Corresponding Author: Alberto Loarte, [alberto.loarte@iter.org](mailto:alberto.loarte@iter.org)

IAEA-CN-316-3405

Materials: via Indico sever:



## Divcontrolnn: A Game-Changer For Real-Time Divertor Plasma Detachment Control In Magnetic Fusion Devices

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IAEA-CN-316-2726

Materials: via Indico sever:



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## **[Regular Poster Twin] Recovery Of ITER Sector Modules From Critical Issues**

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IAEA-CN-316-3406

Materials: via Indico sever:



# Validated, Global Edge-Sol Turbulence Simulations In Various Elm-Free Regimes

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IAEA-CN-316-3241

Materials: via Indico sever:



## **[Regular Poster Twin] Achievement At The ITER Neutral Beam Test Facility And Prospects For The R&D Activities Within The ITER Research Plan**

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IAEA-CN-316-3407

Materials: via Indico sever:



## Hierarchy Of Turbulent Transport Models With The Soledge3X Code

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IAEA-CN-316-2744

Materials: via Indico sever:



DRAFT

## [Regular Poster Twin] The 2024 New Baseline ITER Research Plan

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IAEA-CN-316-3408

Materials: via Indico sever:



# Direct Comparison Of Gyrokinetic And Fluid Scrape-Off Layer Simulations

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IAEA-CN-316-3077

Materials: via Indico sever:



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## [Regular Poster Twin] ITER Core Machine Assembly Progress

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IAEA-CN-316-3409

Materials: via Indico sever:



## **[Regular Twin Poster] Fusion Research And Development Strategy For JA DEMO Investigated In QST**

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IAEA-CN-316-3502

Materials: via Indico sever:



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## **[Regular Twin Poster] STEP: Driving A Pathway To Accelerated Fusion Delivery**

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IAEA-CN-316-3503

Materials: via Indico sever:



# The Physics Of Elm-Free Regimes In Eurofusion Tokamaks

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IAEA-CN-316-3354

Materials: via Indico sever:



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## **[Regular Twin Poster] Towards A Stellarator Fusion Reactor: Achievements Of The European Stellarator Program**

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IAEA-CN-316-3504

Materials: via Indico sever:



## High Performance Elm-Free Semi-Detached Scenario Sustained At High-Current In JET DTE3

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IAEA-CN-316-2924

Materials: via Indico sever:



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## **[Regular Twin Poster] Tokamak Energy'S High Temperature Superconducting Magnet Spherical Tokamak Fusion Pilot Plant Concept**

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Materials: via Indico sever:



## Advances In Core-Edge Integration Of Low Collisionality Quiescent H-Mode Regimes Relevant To Burning Plasmas

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IAEA-CN-316-3340

Materials: via Indico sever:



## **[Regular Twin Poster] Establishment And Progress Of K-DEMO Design Activities: A Coordinated National Approach For Future Fusion DEMOnstration Reactor**

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IAEA-CN-316-3506

Materials: via Indico sever:



## Pathways To Improved Core-Edge Integration For Negative Triangularity Scenarios In The DIII-D Tokamak

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Materials: via Indico sever:



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## Experimental Observation Of Streamer-Like Structure Enhancing Turbulent Transport In Scrape-Off Layer Of H1-2A Tokamak

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IAEA-CN-316-3319

Materials: via Indico sever:



# **Study On The Effect Of Sidebands Of KSTAR-Like Traveling Wave Antenna Power Spectrum On Helicon Wave Current Drive In Exl-50U Spherical Torus Plasma**

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IAEA-CN-316-3034

Materials: via Indico sever:



## **R&D Achievements For The Full-Size 1/8 Vacuum Vessel Towards CFETR Construction**

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IAEA-CN-316-3129

Materials: via Indico sever:



## Transport In The Divertor Region Of Tokamaks And Role For Power Exhaust In Conventional And Alternative Divertors

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IAEA-CN-316-3349

Materials: via Indico sever:



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## Advances In European In-Kind Contributions To Plasma Diagnostics And Port Integration For ITER

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IAEA-CN-316-2854

Materials: via Indico sever:



# **Divertor Flux Control By Rmp Elm Suppression And Radiative Divertor Operation In EAST H-Mode With Tungsten Plasma Facing Components In Support Of ITER New Research Plan**

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IAEA-CN-316-3233

Materials: via Indico sever:



# **Numerical Modeling Of Neutralization Mechanisms And Nonlinear Beam-Plasma Interactions In High-Energy Negative Hydrogen Ion Beam Transport Through Plasma And Gas Targets**

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IAEA-CN-316-3165

Materials: via Indico sever:



## A Global Licensing And Regulation Framework For Fusion Energy

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IAEA-CN-316-2870

Materials: via Indico sever:



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# Development Of A Family Of Rays Tracing Code Based On A Non-Commutative Kinetic Ray System

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IAEA-CN-316-2738

Materials: via Indico sever:



# Numerical Study On Power Coupling And Impurity Sputtering Near An Icrf Antenna

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Materials: via Indico sever:



## **Integrated Modelling Activities In Support Of The ITER Re-Baseline**

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IAEA-CN-316-2868

Materials: via Indico sever:



## Detachment Control In W Divertor KSTAR With Real-Time 2D Boundary Surrogate Model

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IAEA-CN-316-2948

Materials: via Indico sever:



# Implementation Of A Tightly Baffled Long-Legged Divertor In TCV

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IAEA-CN-316-2856

Materials: via Indico sever:



## Material Selection For Mirror Substrate Compatible With High-Power Laser Beam Utilized By Tritium-Monitor Diagnostic In ITER

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IAEA-CN-316-2736

Materials: via Indico sever:



## Conceptual Design Study For Downsizing Of Fusion DEMO Reactor

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IAEA-CN-316-3169

Materials: via Indico sever:



## Exploration Of Magnetic Perturbation Effects On Plasma Edge Transport For Advanced Divertor Configurations In HL-3

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IAEA-CN-316-3118

Materials: via Indico sever:



# Key Dependencies For The Radial Density Decay In The Far-SOL Of JET H-Mode Plasmas

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IAEA-CN-316-2760

Materials: via Indico sever:



## Core-Edge Integration Studies In Negative Triangularity In TCV

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Materials: via Indico sever:



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## European ITER Vacuum Vessel Procurement: The Delivery Of The First Two Sectors And Overview Of The Overall Production

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IAEA-CN-316-3260

Materials: via Indico sever:



## Design And Modeling Of A Closed Divertor With Mid-Leg Pumping For Core-Edge Integration In DIII-D

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IAEA-CN-316-2638

Materials: via Indico sever:



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# Effect Of Edge-Localized Mode Simulation On Detached Plasma In The Divertor Simulation Experimental Module Of Gamma 10/Pdx

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IAEA-CN-316-2691

Materials: via Indico sever:



# Development Plan And Current Status Toward The Realization Of Steady-State Fusion Reactor By Helical Fusion

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IAEA-CN-316-2711

Materials: via Indico sever:



## **Radiation Dependence Of Divertor Leg Length In Detachment On DIII-D**

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IAEA-CN-316-3087

Materials: via Indico sever:



# **Stellarator Plasma Start-Up Model Based On Energy Confinement Time Scaling Laws, Experimental Verification And Numerical Simulation Results**

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IAEA-CN-316-3225

Materials: via Indico sever:



# Simutaneous Elm Suppression And Divertor Detachment Combined Boron Powder And Ne Gas Injection In EAST

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IAEA-CN-316-2925

Materials: via Indico sever:



## Simulation Of Heat Exchanger Tube Rupture Accident For Cn Hccb Tbs

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IAEA-CN-316-3231

Materials: via Indico sever:



## Fast: A Fusion Energy Systems Integration Test Facility

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IAEA-CN-316-2750

Materials: via Indico sever:



# On The Selfconsistency Between Ray-Tracing/Fokker-Planck And The Toroidal MHD Equilibrium For The Lower Hybrid Current Drive

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IAEA-CN-316-2743

Materials: via Indico sever:



## Evaluation Of Finite Orbit Width Effect On Alpha And NBI Ions Heating In CFETR Scenarios

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IAEA-CN-316-3235

Materials: via Indico sever:



## Recent Progress In The Pilot Gamma Pdx-Sc Superconducting Mirror

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IAEA-CN-316-2802

Materials: via Indico sever:



# Snowflake Divertor Studies In MAST-U Tokamak

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IAEA-CN-316-2683

Materials: via Indico sever:



## **Study On Tritium-Free Start-Up Scenarios Of Fusion Power Plant Consistent With Core Plasma Design And Plant Power Balance**

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IAEA-CN-316-2704

Materials: via Indico sever:



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# **Study On The Thermal Performance Of ITER Tungsten Divertor Monoblock Using Nanofluid For Cooling Enhancement**

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Materials: via Indico sever:



## Impact Of Stark Broadening On Ion Temperature Measurements In The ITER Divertor Plasma

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IAEA-CN-316-2765

Materials: via Indico sever:



# Edge Magnetic Islands And Its Application To The Development Of Advanced Divertor Configuration On The J-Text Tokamak

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IAEA-CN-316-2781

Materials: via Indico sever:



# The Scaling Of The Ion Heating And Electrostatic Potential In Spherical Tokamak

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Materials: via Indico sever:



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## High-Field-Side High-Density Region In Globus-M2 Divertor

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Materials: via Indico sever:



## Development Of Welding, Cutting And Bolting Tools For ITER Blanket Remote Maintenance

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Materials: via Indico sever:



## **Boron Carbide Ceramics As Neutron Shielding For ITER Port-Plugs**

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Materials: via Indico sever:



## Impact Of Ion Temperature On Detached Plasma In Gamma 10/Pdx Divertor Simulation Plasma

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Materials: via Indico sever:



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# Scaling Of The H-Mode Electron Separatrix Density Based On Engineering Parameters From C-Mod, AUG And JET Data

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IAEA-CN-316-2848

Materials: via Indico sever:



# Active Spectroscopy For Atomic H And D Measurements In Fusion

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## STEP: Novel Power Infrastructure For Fusion Powerplants

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Materials: via Indico sever:



## **Anomalous X2-Mode Ecrh Power Absorption At The Tj-Ii Stellarator: Comparison Of Theory And Experiments**

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IAEA-CN-316-2897

Materials: via Indico sever:



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# Conceptual Design Of The Fusion Energy Experiment (Fenyx)

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IAEA-CN-316-2907

Materials: via Indico sever:



## The Globus-3 Project As The Next Step In The Research Program On Spherical Tokamaks At The Ioffe Institute

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Materials: via Indico sever:



## Predictive Study Of Non-Axisymmetric Neutral Beam Ion Loss On The Upgraded KSTAR Plasma-Facing Components

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IAEA-CN-316-2916

Materials: via Indico sever:



## Compatibility Of Pronounced Detachment With Improved Confinement On H1-2A Tokamak

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Materials: via Indico sever:



## Design And Development Of ITER VUV Spectrometers With Prototype Testing

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IAEA-CN-316-2985

Materials: via Indico sever:



## Density Dependence Of Convection In Parallel Heat Transport In The Scrape-Off Layer Of Jt-60U

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IAEA-CN-316-2987

Materials: via Indico sever:



DRAFT

## Progress In Fusion Workforce Development And Education In Europe, Usa, Japan And ITER

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IAEA-CN-316-2991

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## Characteristics Of Tungsten Impurity Sources And Transport In KSTAR

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# Nonlinear Spectrum Evolution Of Lower Hybrid Waves And Density Limit Of Lower Hybrid Current Drive

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IAEA-CN-316-2997

Materials: via Indico sever:



## Progress Of The Ehl-2 Spherical Torus Engineering Design

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IAEA-CN-316-3012

Materials: via Indico sever:



DRAFT

## Experimental Investigation Of Deuterium And Nitrogen-Seeded H-Mode Plasmas In KSTAR With New W Divertor

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IAEA-CN-316-3014

Materials: via Indico sever:



## **Towards Practical Fusion Energy: Engineering Challenges And Development Strategies By The Perspective Of Cnpe**

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IAEA-CN-316-3016

Materials: via Indico sever:



## Impact Of Transient Heat Loads On The Detached MAST Upgrade Super-X Divertor

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IAEA-CN-316-3044

Materials: via Indico sever:



# The X-Point Radiator Regime In The WEST Tokamak For Divertor Operation In Next Step Fusion Devices

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IAEA-CN-316-3067

Materials: via Indico sever:



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# Feasibility Of Main Thermal Ion Heating By Icrf Waves Using A Top Launcher In A Tokamak With Deuterium-Tritium Plasmas

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IAEA-CN-316-3079

Materials: via Indico sever:



## Regulatory Framework Towards Fusion Energy In Germany

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IAEA-CN-316-3104

Materials: via Indico sever:



DRAFT

## **A Comprehensive Design Of The Upper Port #18 Interspace Support Structure For The ITER Diagnostic Port**

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IAEA-CN-316-3112

Materials: via Indico sever:



## Study Of Divertor Heat Load Control In The HL-3 Tokamak

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IAEA-CN-316-3120

Materials: via Indico sever:



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## **Impact Of The Plasma Boundary On Machine Operation, And The Risk Mitigation Strategy On JET**

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IAEA-CN-316-3141

Materials: via Indico sever:



## Endoscope Laser-Induced Breakdown Spectroscopy (Libs) For In Situ Elemental Distribution Diagnosis On The Surface Of Divertor In EAST

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IAEA-CN-316-3145

Materials: via Indico sever:



## **Establishing African Fusion Energy Research Consortium: Capacity Building And Innovation Pathway**

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IAEA-CN-316-3149

Materials: via Indico sever:



## Preliminary Design And Development Of Neutron Activation System On Cn Hccb Tbs

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IAEA-CN-316-3156

Materials: via Indico sever:



DRAFT

# Low-Threshold Absolute Parametric Decay Instability In X2-Mode Ecrh Experiments And The Missing Power Effect

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IAEA-CN-316-3163

Materials: via Indico sever:



## Helium Cooled Ceramic Breeder Testing Blanket System Heat Release And Tritium Release For The ITER New Baseline Dt-1 Scenario In The Port Cell

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IAEA-CN-316-3204

Materials: via Indico sever:



## Design And Testing Of Quench Protection System For ITER Magnet Cold Test Bench

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IAEA-CN-316-3224

Materials: via Indico sever:



## Design And Challenge For ITER Divertor Langmuir Probe

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IAEA-CN-316-3239

Materials: via Indico sever:



DRAFT

# Commissioning Of The Chinese Largest Superconducting High-Flux Linear Plasma Device Sword

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IAEA-CN-316-3248

Materials: via Indico sever:



# **A Novel Multi-Timescale Strategy For Fusion Systems Codes And Its Impact To Parametric Analyses Of Fusion Power Plants**

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IAEA-CN-316-3256

Materials: via Indico sever:



DRAFT

## **Favourable Modifications Of Scrape-Off Layer (Sol) Heat Flux Width Through Pulsed Fuelling In ADITYA-U Tokamak**

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IAEA-CN-316-3262

Materials: via Indico sever:



## Alpha Particle Generation And Confinement In D-3He Scenarios In JT-60SA

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IAEA-CN-316-3269

Materials: via Indico sever:



## **Evaluating Economic, Environmental, And Social Impacts Of Adopting Fusion Energy In Saudi Arabia**

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IAEA-CN-316-3277

Materials: via Indico sever:



## Development Of ITER Divertor Outer Vertical Target

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IAEA-CN-316-3283

Materials: via Indico sever:



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## Demonstration Of Modelling And Optimization In Neutral Beam Heating And Current Drive With HL-3 Parameters

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IAEA-CN-316-3291

Materials: via Indico sever:



## Experimental And Simulation Study Of Plasma Detachment In The Linear Plasma Device Mps-Ld

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IAEA-CN-316-3314

Materials: via Indico sever:



## **Fusion Technology An Antidote To Nuclear Energy Deployment In Africa: A Case Study Of Nigeria**

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IAEA-CN-316-3320

Materials: via Indico sever:



## Pranos Fusion : Indiaâˆ™ S Pathway To Commercial Fusion

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IAEA-CN-316-3324

Materials: via Indico sever:



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## Beyond Finite-Differences : A Lattice Boltzmann Approach For Solving Fokker-Planck Equations In Magnetic Fusion

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IAEA-CN-316-3332

Materials: via Indico sever:



## Enabling Real-Time Icrf Heating Predictions Via An Automated Surrogate Model Generator Suite

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IAEA-CN-316-3355

Materials: via Indico sever:



DRAFT

## Plasma Power Framework: How To Prepare Your Country For Fusion Energy

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IAEA-CN-316-3362

Materials: via Indico sever:



# Overview Of Wendelstein 7-X High-Performance Operation

**Olaf Grulke**

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IAEA-CN-316-3257

Materials: via Indico sever:



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# Recent Advances In Plasma Control And Physics Research In The Large Helical Device

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IAEA-CN-316-2806

Materials: via Indico sever:



# Overview Of Stellarator Physics And Engineering Simulation And Modeling For Fusion Pilot Plant Design And Optimization

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IAEA-CN-316-3196

Materials: via Indico sever:



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# Towards Digital Twins Of Fusion Systems

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IAEA-CN-316-2930

Materials: via Indico sever:



## **[Regular Poster Twin] High Performance Elm-Free Semi-Detached Scenario Sustained At High-Current In JET DTE3**

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IAEA-CN-316-3416

Materials: via Indico sever:



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## **[Regular Poster Twin] Advances In Core-Edge Integration Of Low Collisionality Quiescent H-Mode Regimes Relevant To Burning Plasmas**

**Alessandro Bortolon, Andrew Nelson, Arsene Biwole, Charlie Lasnier, Choong-Seock Chang, Colin Chrystal, Daniel Burgess, Darin Ernst, David Eldon, David Hatch, Dinh Truong, Fenton Glass, Filipp Khabanov, Filippo Scotti, Florian Effenberg, Florian Laggner, George McKee, Himank Anand, Huiqian Wang, Jie Chen, Jon Watkins, Qiming Hu, Ryan Hood, Seung-Hoe Ku, Shaun Haskey, Terry Rhodes, Theresa Wilks, Thomas Osborne, Tomas Odstrcil, Tyler Abrams, Xi Chen, Xinxing Ma, Zeyu Li, Zheng Yan**

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IAEA-CN-316-3417

Materials: via Indico sever:



# High Gain Fusion Burning In Inertial Confinement Fusion Plasma

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IAEA-CN-316-2887

Materials: via Indico sever:



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## **[Regular Poster Twin] Pathways To Improved Core-Edge Integration For Negative Triangularity Scenarios In The DIII-D Tokamak**

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IAEA-CN-316-3418

Materials: via Indico sever:



## **Foams As A Pathway To Energy From Inertial Fusion (Fopife): Overview Of Recent Results**

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IAEA-CN-316-3066

Materials: via Indico sever:



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## [Regular Poster Twin] The Physics Of Elm-Free Regimes In Eurofusion Tokamaks

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IAEA-CN-316-3419

Materials: via Indico sever:



## **Targets Developed In The 21St Century At The P.N. Lebedev Physical Institute Of Ras To Study The Extreme Matter Physics Using High-Power Laser Facilities**

**Nataliya Borisenko, Alexander Akunets, Alexander Gromov, Evgeniy Demikhov, Valeriy  
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IAEA-CN-316-3359

Materials: via Indico sever:



## A Novel Metal Foil Ir Sensor Bolometer For ADITYA-U Tokamak

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IAEA-CN-316-3121

Materials: via Indico sever:



# Experimental And Numerical Study Of Broad Wavenumber Turbulence And Transport In Ion Internal Transport Barrier Plasmas On EAST

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IAEA-CN-316-2923

Materials: via Indico sever:



# Breaking Of The Ion Temperature Clamping In Electron Heated Plasmas With Turbulence Stabilization

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IAEA-CN-316-2929

Materials: via Indico sever:



## Beamlet Divergence Of Research And Development Negative Ion Source With Rf Mode At Nifs

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IAEA-CN-316-2714

Materials: via Indico sever:



# Mutliscale Gyrokinetic Simulations Of The Interaction Between Turbulence And Fishbone

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IAEA-CN-316-2780

Materials: via Indico sever:



# How âˆ™The Tail Wags The Dogâˆ™: Physics Of Edge-Core Coupling By Inward Turbulence Propagation

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IAEA-CN-316-2660

Materials: via Indico sever:



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## **Turbulence And Transport Dependence On Temperature Ratio With $T_e/T_i \sim 1\text{-}1.5$ In EAST H-Mode Plasma**

**Pan Li, Yifan He**

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IAEA-CN-316-3226

Materials: via Indico sever:



# Electron Cyclotron Heated Low To High Mode Transition In KSTAR

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IAEA-CN-316-2962

Materials: via Indico sever:



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## Global Gyrokinetic Simulations Of Isotope Effects For Future Tokamak Plasma Core And Pedestal

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IAEA-CN-316-2836

Materials: via Indico sever:



## Progress On Nonlinear MHD Modeling Of ïŒux Pumping And Hybrid Scenario For Asdex Upgrade Plasmas

Haowei Zhang, Matthias Hoelzl, Isabel Krebs, Andreas Burckhart, Alexander Bock, Sibylle Guenter, Valentin Igochine, Karl Lackner, Rohan Ramasamy, Hartmut Zohm

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IAEA-CN-316-2705

Materials: via Indico sever:



## Prediction Of The Implosion Dynamics Via Ai Enhanced Simulations For The Double-Cone Ignition Scheme

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IAEA-CN-316-2709

Materials: via Indico sever:



# **Characterization Of Turbulent Transport Of Particles, Optimization Of Plasma Heating And Operation Current Control In The Coils Of The Scr-1 Stellarator**

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IAEA-CN-316-3347

Materials: via Indico sever:



## Physics Of Itg Transport Reduction In Negative Triangularity Plasmas

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IAEA-CN-316-2659

Materials: via Indico sever:



## Dynamic Evolution Of Pellet Fueling From Ablation Cloud To Reheat Mode In Heliotron J

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IAEA-CN-316-3107

Materials: via Indico sever:



## **The Final Design Accomplishment Of The Ec Upper Launcher And Ex-Vessel Waveguide Systems For ITER**

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IAEA-CN-316-2860

Materials: via Indico sever:



# Discrete Stellarator Coil Optimization

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IAEA-CN-316-2651

Materials: via Indico sever:



DRAFT

## The Establishment Of The Synthetic Diagnostic Modeling Specifically For The Imaging Neutral Particle Analyzer On The EAST

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IAEA-CN-316-3342

Materials: via Indico sever:



# Energetic Particles Transport In The Presence Of Gyrokinetic Turbulence And Alfvén Activity

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IAEA-CN-316-2950

Materials: via Indico sever:



## Effective Edge Transport Barriers Supported By Intrinsic Rotation Shear In DIII-D Negative Triangularity Plasmas

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IAEA-CN-316-3122

Materials: via Indico sever:



# Confinement Modelling Of Enhanced Plasma Performance After Multiple Pellet Injections In The Tj-Ii Stellarator

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IAEA-CN-316-2804

Materials: via Indico sever:



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## The Impurity Behaviors And Transport Analysis Of H1-2A And H1-3 Plasmas

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IAEA-CN-316-3125

Materials: via Indico sever:



## Exploitation Of Stable High-Ip Regime Under New Tungsten Divertor Environment In KSTAR

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IAEA-CN-316-2892

Materials: via Indico sever:



## **Freeegsnke: An Open Source, Pure-Python, Predictive Evolutive Equilibrium Code For Control Design And Validation – Applications At UKAEA**

**Nicola Amorisco, Adriano Agnello, George Holt, Kamran Pentland, Aran Garrod, Alasdair  
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IAEA-CN-316-2871

Materials: via Indico sever:



## Fuel Supply And Helium Ash Exhaust In Global Gyrokinetic Itg/Tem Turbulence

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IAEA-CN-316-2830

Materials: via Indico sever:



DRAFT

## Effect Of Pfirsch-SchlÃ¼ter Flow On Toroidal Flow In The Edge Region Of ADITYA-U Tokamak

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IAEA-CN-316-3237

Materials: via Indico sever:



# Flux Pumping In Asdex Upgrade, JET And JOREK

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IAEA-CN-316-2912

Materials: via Indico sever:



DRAFT

# How MeV-Range Ions And High $\beta$ Will Shape The Core Plasma Dynamics Of Fusion Power Plants

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IAEA-CN-316-2747

Materials: via Indico sever:



## **Towards Dual Plasma Equilibrium And Transport Scenario Planning For Tokamaks Using Cotsim**

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IAEA-CN-316-2775

Materials: via Indico sever:



DRAFT

## Progress Of Craft Negative Ion Source Neutral Beam Injection Test Facility

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IAEA-CN-316-2982

Materials: via Indico sever:



## Helium Ash Removal: Comprehensive Effects Of Alpha Particles On The Source And Transport Of Helium Ash

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IAEA-CN-316-3130

Materials: via Indico sever:



DRAFT

## **Gam Frequency Structure And Properties In Ohmic And Powerful Ecr-Heated Plasmas In A Tokamak**

**Alexander Melnikov**

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IAEA-CN-316-2865

Materials: via Indico sever:



# Development Of Innovative Repeatable Power Laser For Laser Fusion

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IAEA-CN-316-2785

Materials: via Indico sever:



## MHD-Driven Global Gam In ADITYA-U Tokamak

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IAEA-CN-316-3272

Materials: via Indico sever:



## **Development, Testing, And Commissioning Of 300 Kva T-Npc Inverter For 300 Kv, 2A High Voltage Dc Power Supply For Neutral Beam Accelerator System**

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IAEA-CN-316-3284

Materials: via Indico sever:



## **Thermal Management Study On Indigineously Developed High Power Rf Combiner For Rf Source Of ITER Ion Cyclotron Resonance Heating System**

**Ajesh Palliwar, Akhil Jha, Aparajita Mukherjee, Kumar Rajnish, Paresh Vasava, Raghuraj Singh, Rajesh Trivedi, Rohit Anand, Sunil Dani, Ulhas Dethe**

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IAEA-CN-316-3253

Materials: via Indico sever:



# Qualification Of The European Gyrotrons And Power Supplies Of The Electron Cyclotron Heating And Current Drive System Of ITER

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IAEA-CN-316-2763

Materials: via Indico sever:



## Neutral Penetration And Fueling Of ADITYA-U Tokamak Plasmas By Gas-Puffs

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Corresponding Author: Dipexa Modi, [dipexamodi96@gmail.com](mailto:dipexamodi96@gmail.com)

IAEA-CN-316-3293

Materials: via Indico sever:



# **Core-Edge Integrated Scenario With A High-Performance Hybrid Core, Naturally Small Elms, And A Dissipative Divertor On DIII-D**

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IAEA-CN-316-3057

Materials: via Indico sever:



## **Fdtd Simulation Of The Propagation Characteristics Of Millimeter-Wave Vortex In Magnetized Plasma**

**Chenxu Wang**

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Corresponding Author: Chenxu Wang, *wang.chenxu@nifs.ac.jp*

IAEA-CN-316-3143

Materials: via Indico sever:



# The Construction And Commissioning Of The Electron Bernstein Wave Heating And Current-Drive System For MAST-U

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IAEA-CN-316-2867

Materials: via Indico sever:



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# Lagrangian Statistics Of Heavy Impurity Transport In Drift-Wave Turbulence

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IAEA-CN-316-2798

Materials: via Indico sever:



# **Energetic-Electron-Driven Geodesic Acoustic Mode Interaction With Microtearing Mode For Improved Confinement On H1-3 Tokamak**

**Shiqin Wang**

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IAEA-CN-316-3110

Materials: via Indico sever:



# Gyrokinetic Reduced Models For Pedestal Transport: Validation And Application To Core Edge Integration

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Corresponding Author: David Hatch, [drhatch@austin.utexas.edu](mailto:drhatch@austin.utexas.edu)

IAEA-CN-316-2648

Materials: via Indico sever:



# Reconstructing The Plasma Boundary With A Reduced Set Of Diagnostics

**Maksim Stokolesov**

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IAEA-CN-316-2653

Materials: via Indico sever:



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## Exploring The Role Of Subdominant Kinetic Ballooning Mode In Driving Turbulent Transport In Nstx

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IAEA-CN-316-2685

Materials: via Indico sever:



## **Inhouse Development Of Wideband 10 Kw Solid State Power Amplifier For Ich & Cd Rf Source**

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IAEA-CN-316-3243

Materials: via Indico sever:



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## Progress Into The Theoretical & Experimental Fusion Platform In Mexico

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IAEA-CN-316-3173

Materials: via Indico sever:



# Neural Network Reduced Models For Plasma Turbulence

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IAEA-CN-316-3004

Materials: via Indico sever:



DRAFT

## Status Of DIII-D High Field Side Lower Hybrid Current Drive Experiment

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IAEA-CN-316-3181

Materials: via Indico sever:



## Enhanced Surge Protections For Dc Ultra-High Voltage Power Supply For ITER NBI

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IAEA-CN-316-3177

Materials: via Indico sever:



## On Advanced Operation Scenario Development In KSTAR Toward Compact Pilot Device

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IAEA-CN-316-2979

Materials: via Indico sever:



# Global Eigenmode Structure Of Linear Drift-Wave Instabilities On Flux Surfaces In Stellarators

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Corresponding Author: Hongxuan Zhu, [hongxuan@princeton.edu](mailto:hongxuan@princeton.edu)

IAEA-CN-316-2635

Materials: via Indico sever:



DRAFT

## **Advancing Tokamak Transport Simulations With Mmm 9.1: Bridging Theory And Application**

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IAEA-CN-316-2658

Materials: via Indico sever:



## Design Of The Electron Cyclotron Heating Expansion System On EAST

**Weiye Xu, Handong Xu, Dajun Wu, Yong Yang, Liyuan Zhang, Jian Wang, Tao Zhang, Wusong He, Yongzhong Hou**

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IAEA-CN-316-2701

Materials: via Indico sever:



## Repetitive Generation Of Hydrogen Negative Ion Beams With Initial Target Parameters For The ITER Hnb

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IAEA-CN-316-2715

Materials: via Indico sever:



# Reconstruction Of Quasi-Symmetric Stellarator Geometry From A Low-Dimensional Parameter Space

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IAEA-CN-316-2789

Materials: via Indico sever:



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## Overview Of The Design And Procurement Of Ecrh System For Dtt

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IAEA-CN-316-2792

Materials: via Indico sever:



# The Wendelstein 7-X Ecrh Plant - Experience With Reliable Long Pulse Operation Of A Multi Mw Gyrotron Installation

Stefan Marsen

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IAEA-CN-316-2805

Materials: via Indico sever:



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# The Status And Design Challenges Of The Heating And Current Drive Systems For Dtt

**Gustavo Granucci**

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IAEA-CN-316-2816

Materials: via Indico sever:



## Fast Ion Transport Simulations For The Spherical Tokamak For Energy Production

Alex Prokopyszyn, Antti Snicker, Ken McClements, Konsta S  rkim  ski, Samuli Saari

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IAEA-CN-316-2824

Materials: via Indico sever:



# Extrapolative Predictability Of Plasma Turbulent Transport Via A Multi-Fidelity Data Fusion Approach

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IAEA-CN-316-2838

Materials: via Indico sever:



## Evaluation Of Plasma Performance In JA DEMO Steady-State Operation

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IAEA-CN-316-2880

Materials: via Indico sever:



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## Can Turbulent Transport In Optimized Stellarators Be Lower Than Tokamaks

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IAEA-CN-316-2885

Materials: via Indico sever:



## Particle Transport Of Ohmic Discharges With Different Plasma Current In EAST Tokamak

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IAEA-CN-316-2889

Materials: via Indico sever:



# Improvement Of Plasma Performance By Edge Ecrh Power Deposition In EAST

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IAEA-CN-316-2895

Materials: via Indico sever:



## Stray Rf Evaluation And Design Improvement On The ITER Equatorial Ec H&Cd Launcher

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IAEA-CN-316-2896

Materials: via Indico sever:



## Study On The Key Technologies Involved In The Laser Neutralisation Of Negative Ion Source

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IAEA-CN-316-2906

Materials: via Indico sever:



## Data-Efficient Digital Twinning Strategies And Surrogate Models Of Quasilinear Turbulence In JET And STEP

Aaro J  rvinen, Adam Kit, Amanda Bruncrona, Anushan Fernando, Bhavin Patel, Catherine Siddle, Colin Roach, Daniel Jordan, Francis Casson, Frida Eriksson, Garud Snoep, Harry Dudding, James Buchanan, Jonathan Citrin, Lorenzo Zanisi, Luigi Quarantiello, Orso Meneghini, P Hamel, Salvatore Correnti, Stanislas Pamela, T Norman, Theodore Brown, Tom Neiser, Vincenzo Lomonaco

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IAEA-CN-316-2936

Materials: via Indico sever:



## Observations Of Core Heating And Current Drive By Helicon Waves At DIII-D

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IAEA-CN-316-2943

Materials: via Indico sever:



# Exploration Of Emission Spectra From Highly Charged Tungsten Impurity Ions In X-Ray Wavelength Range Of 3.7âˆ™4.0 Å In The Large Helical Device For Fusion Plasma Diagnostics

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Materials: via Indico sever:



# Effect Of Decreasing Aspect Ratio On Ion-Scale Electrostatic Drift-Type Modes And Pedestal Stability In H-Mode Plasmas

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IAEA-CN-316-2952

Materials: via Indico sever:



# Prediction Of Heat Flux Splitting By Non-Axisymmetric Magnetic Field In The Realistic Tokamak Wall And Divertor Based On 3D Cad Model

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IAEA-CN-316-2958

Materials: via Indico sever:



# Numerical Studies Of Impurity Neoclassical Transport In Plasma Edge Region By Global Full-F Gyrokinetic Simulations

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IAEA-CN-316-2959

Materials: via Indico sever:



# Impact Of The Temperature Ratio On Turbulence And Impurity Transport In The EAST Plasma Core

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IAEA-CN-316-2968

Materials: via Indico sever:



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## Performance Mt-I Spherical Tokamak With Upgraded Power Supplies System

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IAEA-CN-316-2990

Materials: via Indico sever:



# Integrated Numerical Analysis Of Impurity Transport And Sources For High Currentâˆ™High Power Baseline Pulses With T In JET-ILW

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IAEA-CN-316-3027

Materials: via Indico sever:



## Technologies Of High Voltage Neutral Beam Injectors For Magnetic Fusion Devices

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IAEA-CN-316-3030

Materials: via Indico sever:



## Effects Of Inter-ELM Quasi-Coherent Modes On The Dynamics Of Pedestal Turbulence On HL-2A Tokamak

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IAEA-CN-316-3032

Materials: via Indico sever:



## Machine Learning Aided Neutron Yield For DUD Detection Based On JET And TFTR Deuterium-Tritium Plasmas

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IAEA-CN-316-3035

Materials: via Indico sever:



# **Impact Of Li-Granule Injection On The Improvement Of Bulk Energy And Particle Transport And Expulsion Of Mid/High-Z Impurities In The LHD Heliotron**

**Daniel Medina Roque**

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IAEA-CN-316-3041

Materials: via Indico sever:



# First Fast Ion Measurements By The Collective Thomson Scattering And Ion Cyclotron Emission Diagnostics At Wendelstein 7-X.

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IAEA-CN-316-3050

Materials: via Indico sever:



## First Experimental Observation Of “Staircase” High Confinement Mode In Tokamak Plasma

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IAEA-CN-316-3063

Materials: via Indico sever:



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# **Rfx-Mod2 And The Nefertari Project: A Diffuse Infrastructure For The Study Of Magnetically Confined Plasmas For Fusion**

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*Consorzio RFX, Italy*

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IAEA-CN-316-3070

Materials: via Indico sever:



# Safe Termination Of Runaway Electron Beams During Major Disruptions By Shattered Pellet Injection In The HL-3 Tokamak

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IAEA-CN-316-3097

Materials: via Indico sever:



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# **Influence Of Resonant Magnetic Perturbation On Flow And Turbulence Dynamics Towards L-H Transition In H1-3**

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IAEA-CN-316-3114

Materials: via Indico sever:



## Imapct Of Runaway Electron On Plasma Initiation Of ADITYA-U Tokamak As Investigated Via Observed Hard X-Ray Spectrum

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IAEA-CN-316-3132

Materials: via Indico sever:



## Development And Future Plan Of The Negative Hydrogen Ion Sources For NBI At SWIP

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IAEA-CN-316-3150

Materials: via Indico sever:



## **Completion Of Manufacturing And Testing Of 8 ITER Gyrotrons With Its Auxiliary Systems**

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IAEA-CN-316-3197

Materials: via Indico sever:



## **Ion Doppler Spectroscopy System On The Sunist-2 Spherical Tokamak**

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IAEA-CN-316-3210

Materials: via Indico sever:



# The Development Of Millimeter-Wave Heating System Towards Cfedr

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IAEA-CN-316-3273

Materials: via Indico sever:



## **The Critical Role Of Shear Flow Collapse In Near Greenwald Density Limit Operation On The H1-2A Tokamak**

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IAEA-CN-316-3325

Materials: via Indico sever:



# Non-Inductive High-Performance Discharges On TCV On The Path To Steady State

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IAEA-CN-316-3345

Materials: via Indico sever:



DRAFT

# New Understanding Of Resonant Layer Response Via Extended Drift MHD

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IAEA-CN-316-3103

Materials: via Indico sever:



# **First Demonstration Of Disruption Avoidance By Real-Time Physics-Based Disruption Event Characterization And Forecasting On KSTAR**

**Steven Sabbagh**

*Columbia University, United States*

Corresponding Author: Steven Sabbagh, [sabbagh@pppl.gov](mailto:sabbagh@pppl.gov)

IAEA-CN-316-3247

Materials: via Indico sever:



## **[Regular Poster Twin] The Physics Basis For Implementing Alternative Divertor Configurations On Reactors**

**Kevin Verhaegh**

*CCFE, Netherlands*

Corresponding Author: Kevin Verhaegh, [kevin.verhaegh@ukaea.uk](mailto:kevin.verhaegh@ukaea.uk)

IAEA-CN-316-3413

Materials: via Indico sever:



# Thermal Quench Dynamics And Heat Flux Distribution During Massive-Impurity-Injection Triggered Disruption In EAST

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IAEA-CN-316-2971

Materials: via Indico sever:



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## First Edge-Localized Mode Suppression With Lower Hybrid Waves On The EAST Tokamak

Fangchuan Zhong, Fuqiong Wang, Genfan Ding, Gongshun Li, Guoqiang Li, Guosheng Xu, Hailin Zhao, Huiqian Wang, Jinping Qian, LI LI, Liang Liao, Liang Wang, Lingyi Meng, Manni Jia, Mengze Xu, Miaohui Li, Ning Yan, Qing Zang, Ran Chen, Rong Yan, Rui Ding, Shuai Xu, Tao Zhang, Tengfei Tang, Tonghui Shi, Wenyin Wei, Xiang Gao, Xianzu Gong, Xiaohe Wu, YIFEI JIN, Yifeng Wang, Youwen Sun, Yunfeng Liang, Zeng Long

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IAEA-CN-316-3095

Materials: via Indico sever:



## **[Regular Poster Twin] WEST Long-Pulse Achievements In Support Of Next-Step Fusion Devices**

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IAEA-CN-316-3420

Materials: via Indico sever:



DRAFT

## Characterization Of Runaway Impact On Instrumented Sacrificial Limiters On DIII-D

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IAEA-CN-316-2886

Materials: via Indico sever:



## Non-Inductive Current Drive At Zero Loop Voltage Using Lhcd Pam Launcher On ADITYA-U

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IAEA-CN-316-3245

Materials: via Indico sever:



DRAFT

## [Regular Poster Twin] Development Of High-Performance Long-Pulse Discharge In KSTAR

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Corresponding Author: HYUNSEOK KIM, *hskim0618@nfri.re.kr*

IAEA-CN-316-3421

Materials: via Indico sever:



## Transition From Bursting Elms To Continuous Turbulence Fluctuations In High Sol Density Regimes

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IAEA-CN-316-2774

Materials: via Indico sever:



DRAFT

## **Analysis And Simulation Of Effective Runaway Electron Mitigation Using A Passive Coil In J-Text Tokamak**

**Chang Liu, Chang Liu**

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IAEA-CN-316-3281

Materials: via Indico sever:



## **[Regular Poster Twin] Attaining Tokamak Level Performance Through Plasma Density Profile Shaping At Wendelstein 7-X**

**Sebastian Bannmann**

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Corresponding Author: Sebastian Bannmann, [sebastian.bannmann@ipp.mpg.de](mailto:sebastian.bannmann@ipp.mpg.de)

IAEA-CN-316-3422

Materials: via Indico sever:



## Observation Of Pedestal Ion Temperature Screening Of High-Z Impurities In The Hybrid Scenario On DIII-D

Tomas Odstrcil

*General Atomics, United States*

Corresponding Author: Tomas Odstrcil, [odstrcilt@fusion.gat.com](mailto:odstrcilt@fusion.gat.com)

IAEA-CN-316-2650

Materials: via Indico sever:



# Changes In Disruption Dynamics During The First Operation Of A Runaway Electron Mitigation Coil (Remc) On A Tokamak

Jeffrey Levesque

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Corresponding Author: Jeffrey Levesque, [jpl2131@columbia.edu](mailto:jpl2131@columbia.edu)

IAEA-CN-316-3080

Materials: via Indico sever:



DRAFT

## **[Regular Poster Twin] Long-Pulse Elm-Free H-Mode Regime With Feedback-Controlled Detachment Under Boronized Metal Wall In EAST**

**Guosheng Xu**

*Institute of Plasma Physics, Chinese Academy of Sciences, China*

Corresponding Author: Guosheng Xu, [gsxu@ipp.ac.cn](mailto:gsxu@ipp.ac.cn)

IAEA-CN-316-3423

Materials: via Indico sever:



## **[Regular Poster Twin] Development Of Steady-Sate Operation Scenarios With Full Tungsten LimITER/Divertor In ITER-Relevant Configuration On EAST**

**Juan Huang**

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Corresponding Author: Juan Huang, [juan.huang@ipp.ac.cn](mailto:juan.huang@ipp.ac.cn)

IAEA-CN-316-3424

Materials: via Indico sever:



## **[Regular Poster Twin] Prediction Of The Implosion Dynamics Via Ai Enhanced Simulations For The Double-Cone Ignition Scheme**

**Fuyuan Wu, Yangyi Lei, Yuhan Wang, Rafael Ramis, Jie Zhang**

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Corresponding Author: Fuyuan Wu, Yangyi Lei, Yuhan Wang, Rafael Ramis, Jie Zhang, [fuyuan.wu@sjtu.edu.cn](mailto:fuyuan.wu@sjtu.edu.cn)

IAEA-CN-316-3425

Materials: via Indico sever:



## WEST Operation âˆ™ Reliability And Availability Of A Long Pulse Fusion Tokamak

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*CEA Cadarache, France*

Corresponding Author: Valerie LAMAISSON, *valerie.lamaison@cea.fr*

IAEA-CN-316-2927

Materials: via Indico sever:



DRAFT

# Drift Flows Impact Island Divertor Operation In Wendelstein 7-X

**Carsten Killer**

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Corresponding Author: Carsten Killer, [carsten.killer@ipp.mpg.de](mailto:carsten.killer@ipp.mpg.de)

IAEA-CN-316-3182

Materials: via Indico sever:



## [Regular Poster Twin] Development Of Innovative Repeatable Power Laser For Laser Fusion

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*Osaka university, Japan*

Corresponding Author: Jumpei Ogino, *ogino.jumpei.ile@osaka – u.ac.jp*

IAEA-CN-316-3426

Materials: via Indico sever:



## Actively Cooled Plasma Facing Components Design For W7-X And JT-60SA In Support Of The ITER Divertor

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IAEA-CN-316-3023

Materials: via Indico sever:



# **Real-Time Feedback Control Of Radiation Front Position For Detachment In Multi-Device Studies: Application Of Machine Learning On DIII-D And KSTAR**

**CheolSik Byun**

*Princeton University, United States*

Corresponding Author: CheolSik Byun, [cb3887@princeton.edu](mailto:cb3887@princeton.edu)

IAEA-CN-316-3302

Materials: via Indico sever:



## [Regular Poster Twin] High Gain Fusion Burning In Inertial Confinement Fusion Plasma

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IAEA-CN-316-3427

Materials: via Indico sever:



## First SOLPS-ITER Wide Grid Simulations Of The ITER Burning Plasma Scrape-Off Layer

**Andrei Pshenov, Elizaveta Kaveeva, Ilya Senichenkov, Nikita Shtyrkhunov, Richard Pitts, Vladimir Rozhansky, Xavier Bonnin**

*ITER Organization, Russia*

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IAEA-CN-316-2749

Materials: via Indico sever:



## Advancing Plasma-Facing Materials For Fusion Pilot Plants At DIII-D

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Corresponding Author: Jonathan Coburn, [jdcobur@sandia.gov](mailto:jdcobur@sandia.gov)

IAEA-CN-316-3094

Materials: via Indico sever:



## **[Regular Poster Twin] Foams As A Pathway To Energy From Inertial Fusion (Fopife): Overview Of Recent Results**

**sebastien Le Pape**

*Ecole Polytechnique, France*

Corresponding Author: sebastien Le Pape, *sebastien.le – pape@polytechnique.edu*

IAEA-CN-316-3428

Materials: via Indico sever:



## **The Divertor Tokamak Test Facility: Machine Design, Construction And Commissioning**

**Aldo Pizzuto, Alessandro Lampasi, Andrea Reale, Antonio Cucchiaro, Bruno Riccardi, Gian  
Mario Polli, Gianluca Barone, Giuseppe Ramogida, Lori Gabellieri, Mauro Dalla Palma,  
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Bruno Riccardi, Gian Mario Polli, Gianluca Barone, Giuseppe Ramogida, Lori Gabellieri, Mauro  
Dalla Palma, Selanna Roccella, *aldo.pizzuto@dtl - project.it*

IAEA-CN-316-2758

Materials: via Indico sever:



## Modelling Divertor Solutions For Power Exhaust: In-Depth Experimental Validation In TCV

Elena Tonello

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IAEA-CN-316-2842

Materials: via Indico sever:



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## Design And Qualification Activity Of The First Divertor Of The Divertor Tokamak Test Facility

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Corresponding Author: Selanna Roccella, [selanna.roccella@enea.it](mailto:selanna.roccella@enea.it)

IAEA-CN-316-2939

Materials: via Indico sever:



## **[Regular Poster Twin] Targets Developed In The 21St Century At The P.N. Lebedev Physical Institute Of Ras To Study The Extreme Matter Physics Using High-Power Laser Facilities**

**Nataliya Borisenko, Alexander Akunets, Alexander Gromov, Evgeniy Demikhov, Valeriy Dorogotvtsev, Alexander Eriskin, Vasiliy Litvin, Kirill Pervakov, Alexander Pastukhov, Vladimir Pimenov, Sergey Tolokonnikov**

*P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Russia*

Corresponding Author: Nataliya Borisenko, Alexander Akunets, Alexander Gromov, Evgeniy Demikhov, Valeriy Dorogotvtsev, Alexander Eriskin, Vasiliy Litvin, Kirill Pervakov, Alexander Pastukhov, Vladimir Pimenov, Sergey Tolokonnikov, *borisenkong@lebedev.ru*

IAEA-CN-316-3429

Materials: via Indico sever:



## **SOLPS-ITER Simulations Of An X-Point Radiator In The DIII-D High-Beta Hybrid Plasmas**

**Xinxing Ma**

*General Atomics, United States*

Corresponding Author: Xinxing Ma, [maxinxing@fusion.gat.com](mailto:maxinxing@fusion.gat.com)

IAEA-CN-316-2954

Materials: via Indico sever:



## Performance Evaluation Of Tungsten Fiber-Reinforced Tungsten Composites Developed At SWIP For Application In Nuclear Fusion Reactors

Christian Linsmeier, Fan Feng, Jan Willem Coenen, Jianbao Wang, Jiming Chen, Juan Du, Jun Tang, Pan Wen, Qiang Tao, Tianyu Zhao, Xiang Liu, Yiran Mao, Youing Lu, Zhaodong Liu

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IAEA-CN-316-3364

Materials: via Indico sever:



# **[Regular Poster Twin] Observation Of Pedestal Ion Temperature Screening Of High-Z Impurities In The Hybrid Scenario On DIII-D**

**Tomas Odstrcil**

*General Atomics, United States*

Corresponding Author: Tomas Odstrcil, [odstrcilt@fusion.gat.com](mailto:odstrcilt@fusion.gat.com)

IAEA-CN-316-3435

Materials: via Indico sever:



## **Breakthrough In Field-Reversed Configuration Formation And Sustainment Via Neutral-Beam Injection In C-2W**

**Hiroshi Gota**

*TAE Technologies, Inc., United States*

Corresponding Author: Hiroshi Gota, [hgota@tae.com](mailto:hgota@tae.com)

IAEA-CN-316-2666

Materials: via Indico sever:



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## Analysis Of Fuel Retention And Recovery In JET With Be-W Wall

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IAEA-CN-316-2718

Materials: via Indico sever:



## [Regular Poster Twin] First Edge-Localized Mode Suppression With Lower Hybrid Waves On The EAST Tokamak

Fangchuan Zhong, Fuqiong Wang, Genfan Ding, Gongshun Li, Guoqiang Li, Guosheng Xu, Hailin Zhao, Huiqian Wang, Jinping Qian, LI LI, Liang Liao, Liang Wang, Lingyi Meng, Manni Jia, Mengze Xu, Miaohui Li, Ning Yan, Qing Zang, Ran Chen, Rong Yan, Rui Ding, Shuai Xu, Tao Zhang, Tengfei Tang, Tonghui Shi, Wenyin Wei, Xiang Gao, Xianzu Gong, Xiaohe Wu, YIFEI JIN, Yifeng Wang, Youwen Sun, Yunfeng Liang, Zeng Long

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IAEA-CN-316-3437

Materials: via Indico sever:



## **[Regular Poster Twin] Non-Inductive Current Drive At Zero Loop Voltage Using Lhcd Pam Launcher On ADITYA-U**

**Jagabandhu Kumar**

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IAEA-CN-316-3439

Materials: via Indico sever:



## **[Regular Twin Poster] Modelling Divertor Solutions For Power Exhaust: In-Depth Experimental Validation In TCV**

**Elena Tonello**

*Ecole Polytechnique FÃ©dÃ©rale de Lausanne (EPFL, Switzerland)*

Corresponding Author: Elena Tonello, [elena.tonello@epfl.ch](mailto:elena.tonello@epfl.ch)

IAEA-CN-316-3442

Materials: via Indico sever:



## **[Regular Twin Poster] Drift Flows Impact Island Divertor Operation In Wendelstein 7-X**

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IAEA-CN-316-3444

Materials: via Indico sever:



**[Regular Twin Poster] Real-Time Feedback Control Of Radiation  
Front Position For Detachment In Multi-Device Studies:  
Application Of Machine Learning On DIII-D And KSTAR**

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IAEA-CN-316-3445

Materials: via Indico sever:



## Addressing Critical Tritium Challenges In Fusion Power Plants Using Spin-Polarized Fuel

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IAEA-CN-316-2622

Materials: via Indico sever:



## Use Of Shielding Benchmark Experiment Database (Sinbad) To Identify Nuclear Data Status And Guide Future Experimental Activities

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IAEA-CN-316-2633

Materials: via Indico sever:



## Status Of $D_0D^{1/2}D_\mu$ Development Of A Tritium Fuel Cycle For Long-Term Tokamak Operation

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IAEA-CN-316-2639

Materials: via Indico sever:



# Single Mode Evolution In Wave-Particle Interactions In Tokamaks

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IAEA-CN-316-2649

Materials: via Indico sever:



DRAFT

# Explainable Ai Reveals Growth Of Instability For Forecasting Elm Onsets: Toward Multi-Machine Predictions

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IAEA-CN-316-2654

Materials: via Indico sever:



# Neoclassical Theory On Low Frequency Drift Alfvén Waves

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IAEA-CN-316-2657

Materials: via Indico sever:



DRAFT

# **The Benchmark Database Of Experiments, Nuclear, And Technological Data For Hybrid Fusion Systems With Various Types Of Blankets**

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IAEA-CN-316-2664

Materials: via Indico sever:



# Physics Basis Of Discrepancies Between Temperature Measurements By Ece And Thomson Scattering In High Performance Plasmas On JET, EAST And DIII-D

Francesco Orsitto

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IAEA-CN-316-2673

Materials: via Indico sever:



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# 10-Hz-Injection At A Laser Focus Of Targets Accelerated Into Spring-Htsc-Maglev System

Elena Koresheva

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Corresponding Author: Elena Koresheva, [elena.koresheva@gmail.com](mailto:elena.koresheva@gmail.com)

IAEA-CN-316-2680

Materials: via Indico sever:



# The Study Of Alfvén Eigenmodes On The Spherical Tokamak Globus-M2 Using Doppler Backscattering

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IAEA-CN-316-2681

Materials: via Indico sever:



## First Results Of Eho-Like Fluctuations Studies At The Spherical Tokamak Globus-M2

**Alexander Yashin, Anna Ponomarenko, Arseny Tokarev, Ekaterina TUKHMENEVA, Evgenii Kiselev, Gleb Kurskiev, Igor MIROSHNIKOV, Ivan Balachenkov, Nikita Zhiltsov, Nikolay KHROMOV, Nikolay Sakharov, Petr Shchegolev, Vasily Gusev, Vladimir Minaev, Vladimir SOLOKHA, Vladislav VELIZHANIN, Yury Petrov**

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IAEA-CN-316-2682

Materials: via Indico sever:



## Quantitative Evaluation Of Beam Loss Based On Radiation Detection In High-Duty Beam Commissioning Of Lipac Rfq

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IAEA-CN-316-2688

Materials: via Indico sever:



DRAFT

## Effect Of Ech On Energetic-Particle-Driven MHD Modes In Heliotron J

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IAEA-CN-316-2702

Materials: via Indico sever:



## Measurement Of Nuclear Reaction Cross-Section For Thermonuclear Applications

**Marina Bikchurina, Sergey Taskaev**

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IAEA-CN-316-2706

Materials: via Indico sever:



DRAFT

# Observation Of Non-Collisional Ion Heating In Helical Plasmas Under Dominant Electron Heating Condition By Neutral Beam Injection On LHD

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IAEA-CN-316-2707

Materials: via Indico sever:



# Laser-Driven Non-Thermal Aneutronic Proton-Boron Fusion Reactions In Solid-Density Plasma

Shinsuke FUJIOKA

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Corresponding Author: Shinsuke FUJIOKA, [fujioka.shinsuke.ile@osaka-u.ac.jp](mailto:fujioka.shinsuke.ile@osaka-u.ac.jp)

IAEA-CN-316-2728

Materials: via Indico sever:



## Experimental Update On The Counter-Illuminating Fast Ignition Scheme Using The Kj-Class Ultra-Intense Laser Lfex

Yoshitaka Mori

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IAEA-CN-316-2730

Materials: via Indico sever:



## 10-Hz Laser Beam Steering And Illumination For Free-Fall Targets

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IAEA-CN-316-2731

Materials: via Indico sever:



## Validation Of Tungsten Nuclear Data Using The Tud-W Benchmark

**Fabbri Fabbri**

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IAEA-CN-316-2751

Materials: via Indico sever:



# Investigation Of Filament Dynamics Using High-Speed Video Shooting In The Globus-M2 Tokamak

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IAEA-CN-316-2752

Materials: via Indico sever:



DRAFT

## Rmp Elm Control Unveils High Ion Temperature With Itb In The DIII-D Tokamak

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*PPPL, United States*

Corresponding Author: Qiming Hu, [qhu@pppl.gov](mailto:qhu@pppl.gov)

IAEA-CN-316-2768

Materials: via Indico sever:



# Accelerating Development Of Sustainable Fusion Reactor With Tuneable Neutron Field Of Compact Accelerator-Based Neutrons Sources

Joven Lim

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Corresponding Author: Joven Lim, [joven.lim@ukaea.uk](mailto:joven.lim@ukaea.uk)

IAEA-CN-316-2769

Materials: via Indico sever:



# Investigating Long-Duration Plasma Operation With The International Multi-Machine Database

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IAEA-CN-316-2770

Materials: via Indico sever:



# Hybrid Simulation Of Alfvén Eigenmodes Caused By Multiple Fast Ion Species In The Large Helical Device

RYOSUKE SEKI

*National Institute for Fusion Science, Japan*

Corresponding Author: RYOSUKE SEKI, [seki.ryohsuke@nifs.ac.jp](mailto:seki.ryohsuke@nifs.ac.jp)

IAEA-CN-316-2779

Materials: via Indico sever:



DRAFT

# **Non-Inductive Plasma Start-Up Using Electron Bernstein Wave Mode-Converted From Electron Cyclotron Wave Launched From High-Field Side On Spherical Tokamak, Quest**

**kazuaki Hanada**

*Advanced Fusion Research Center, Research Institute for Applied Mechanics, Kyushu University, Japan*

Corresponding Author: kazuaki Hanada, [hanada@triam.kyushu-u.ac.jp](mailto:hanada@triam.kyushu-u.ac.jp)

IAEA-CN-316-2783

Materials: via Indico sever:



# Observation Of Nonlinear Coupling Of Waves Excited At Distinct Regions Of Overlapping Dual Lower Hybrid And Ion Cyclotron Resonances

Hiroe Igami

*National Institute for Fusion Science, Japan*

Corresponding Author: Hiroe Igami, *igami.hiroe@nifs.ac.jp*

IAEA-CN-316-2787

Materials: via Indico sever:



## Study Of Fast Ion Transport And Losses During Alfvén Type MHD Instabilities At Globus-M2

Olga Skrekel

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Corresponding Author: Olga Skrekel, [skrekel@mail.ioffe.ru](mailto:skrekel@mail.ioffe.ru)

IAEA-CN-316-2812

Materials: via Indico sever:



# Openmc Based Simulations For Shutdown Dose Rate Assessment In The DEMO Fusion Reactor

**Roman Afanasenko**

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IAEA-CN-316-2815

Materials: via Indico sever:



DRAFT

# Heating D Ions To Optimal D-T Fusion Energies With Icrf Waves

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IAEA-CN-316-2819

Materials: via Indico sever:



## Verification And Validation Of Global Gyrokinetic Simulations Of Alfvén Eigenmodes In Spherical Tokamaks

Clive Michael, Guillaume Brochard, Handi Huang, Henry Hingyin Wong, Ken McClements,  
Luca Garzotti, Mario Podesta, Neal Crocker, Nicolas Fil, Nikolai Gorelenkov, Phillip Bonofiglo,  
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Ken McClements, Luca Garzotti, Mario Podesta, Neal Crocker, Nicolas Fil, Nikolai Gorelenkov,  
Phillip Bonofiglo, Troy Carter, Xishuo Wei, Yangyang Yu, Zhihong Lin, pengfei Liu, [clive.michael@physics.ucla.edu](mailto:clive.michael@physics.ucla.edu)

IAEA-CN-316-2822

Materials: via Indico sever:



# Noninductive Startup Of Spherical Tokamak With Reduced Trapped Electrons By Electron Bernstein Wave Heating And Current Drive On Late

Masaki Uchida

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IAEA-CN-316-2832

Materials: via Indico sever:



## Progress With Commissioning The Icrh System For The Large Optimized Stellarator Wendelstein 7-X

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IAEA-CN-316-2834

Materials: via Indico sever:



# Stimulated Brillouin Scattering And Filamentation Instabilities In High Temperature Plasmas

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IAEA-CN-316-2862

Materials: via Indico sever:



# Suppression Of Low-K Turbulence By AlfvÃ©n Eigenmodes In The DIII-D Tokamak

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IAEA-CN-316-2873

Materials: via Indico sever:



DRAFT

# Dual Utilization Of X-I And O-I Eccd For Fully Solenoid-Free Operations For A Fusion Reactor

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IAEA-CN-316-2874

Materials: via Indico sever:



## Evaluation Of Solid Spherical Fuel Compression By Comparison With Simulation

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IAEA-CN-316-2877

Materials: via Indico sever:



## Experimental Study Of Epm Instability In The EAST Off-Axis Region With Elevated Safety Factor (Q) Value

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Corresponding Author: Ming Xu, [mxu@ipp.ac.cn](mailto:mxu@ipp.ac.cn)

IAEA-CN-316-2894

Materials: via Indico sever:



# Global Electromagnetic Symmetry-Breaking Effects On Momentum Transport And Current Generation In Tokamaks

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IAEA-CN-316-2900

Materials: via Indico sever:



DRAFT

# **The Effect Of Gas Puffing At The LH Grill On The Efficiency Of The Central Dense Plasma Ion Heating At The FT-2 Tokamak**

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IAEA-CN-316-2910

Materials: via Indico sever:



## Neutral Beam Injection For Electron Heating Of Globus-M2 Spherical Tokamakâ€™S Plasma

**Petr Shchegolev**

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Corresponding Author: Petr Shchegolev, [peter\\_shchegolev@mail.ru](mailto:peter_shchegolev@mail.ru)

IAEA-CN-316-2913

Materials: via Indico sever:



# Control Of Energetic Particle Modes On The TCV Tokamak

**Anton Jansen van Vuuren**

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IAEA-CN-316-2917

Materials: via Indico sever:



## Neutronics Analysis Of EU DEMO Conducted At The Lithuanian Energy Institute

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IAEA-CN-316-2921

Materials: via Indico sever:



# Feasibility Study Of Non-Maxwellian Distribution Measurement Using An Oblique View In ITER Electron Cyclotron Emission Diagnostics

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IAEA-CN-316-2941

Materials: via Indico sever:



## **Burn Control In ITER By Maximization Of Ion Cyclotron Power Absorption Through Regulation Of Helium-3 Concentration**

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IAEA-CN-316-2945

Materials: via Indico sever:



DRAFT

# **Fusion-Alpha-Enhanced Displacement And Stability Of ITER Helical Core Plasmas**

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IAEA-CN-316-2951

Materials: via Indico sever:



# Nonlinear Saturation Of Toroidal Alfvén Eigenmode Via Ion Induced Scattering In Nonuniform Plasmas

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Corresponding Author: Zhiyong Qiu, [zqiu@ipp.ac.cn](mailto:zqiu@ipp.ac.cn)

IAEA-CN-316-2957

Materials: via Indico sever:



## Application And Analysis Of The Revised Accurate Weight Method For Fusion Facilities

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IAEA-CN-316-2964

Materials: via Indico sever:



## Design-Based Multidimensional Tritium Transport Analysis Platform For Blanket System

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IAEA-CN-316-2966

Materials: via Indico sever:



# **Analysis Of Background Plasma Behavior Under External Fields In The Low Energy Beam Transport Section Of Lipac**

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IAEA-CN-316-2973

Materials: via Indico sever:



## Lower Density Limit For Accessing To Elm Suppression Using N=4 Rmp In EAST

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IAEA-CN-316-2981

Materials: via Indico sever:



DRAFT

## Effect Of Electron Cyclotron Waves On Plasma With Runaway Electrons

**Pavel Aleynikov, Alexander Battey, Carlos Paz-Soldan, Eric M. Hollmann, Andrey Lvovskiy, Jayson Barr, Claudio Marini, Daisuke Shiraki, Charlie Lasnier**

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IAEA-CN-316-2996

Materials: via Indico sever:



# Investigation Of Double Frequency Fishbone In EAST With Neutral Beam Injection

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IAEA-CN-316-3006

Materials: via Indico sever:



DRAFT

## **Radiological Safety Assessments For Fusion Neutron Source In Engineering Design Activities Under Ifmif/Eveda Project**

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*National Institutes for Quantum Science and Technology, Japan*

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IAEA-CN-316-3021

Materials: via Indico sever:



## Investigation Of Impurity Behaviour In Three-Ion Icrf Scenarios In H-D And D-T Plasmas At JET

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IAEA-CN-316-3026

Materials: via Indico sever:



# Non-Inductive Current Start-Up And Optimized Ramp-Up In Exl-50U For Next-Generation Spherical Torus Devices

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IAEA-CN-316-3047

Materials: via Indico sever:



# Drift-Kinetic And Fully Kinetic Simulations Of Plasma Waves Based On A Geometric Particle-In-Cell Discretization Of The Vlasov-Maxwell System

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IAEA-CN-316-3051

Materials: via Indico sever:



## Feasibility Study Of Tungsten-Water/Air Reaction In DEMO Conditions

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IAEA-CN-316-3054

Materials: via Indico sever:



## Experimental Observations Of Magnetohydrodynamic Instabilities In Hl-3 Low-Current High-Î´n Plasmas

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IAEA-CN-316-3060

Materials: via Indico sever:



DRAFT

# Observation Of High-Frequency Oscillations In The Tuman-3M Ohmic Plasmas

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IAEA-CN-316-3061

Materials: via Indico sever:



# Alpha Particle Velocity Space And Orbit Sensitivity Of Gamma-Ray Spectroscopy Diagnostics Based On The $^{10}\text{B}(\alpha, p)^{13}\text{C}$ Reaction

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IAEA-CN-316-3076

Materials: via Indico sever:



## Simulations Of Tases In Nstx-U

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IAEA-CN-316-3081

Materials: via Indico sever:



## Experimental Profiles Of Helicon Wave Power In The Core Of DIII-D Plasmas

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IAEA-CN-316-3083

Materials: via Indico sever:



# Evolution And Mitigation Of Runaway Electrons Emerging During Tokamak Plasma Start-Up

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IAEA-CN-316-3089

Materials: via Indico sever:



# Icrf Antenna Design For The Hl-3 Tokamak

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IAEA-CN-316-3098

Materials: via Indico sever:



DRAFT

## Effects Of Zonal Fields On Energetic-Particle Excitations Of Reversed-Shear Alfvén Eigenmodes

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IAEA-CN-316-3109

Materials: via Indico sever:



## Operation Space Of Off-Axis Electron Cyclotron Current Drive At High Density On The DIII-D Tokamak

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IAEA-CN-316-3113

Materials: via Indico sever:



# **Pressure Gradient Driven Core-Localized Electromagnetic Instability In The Plasma With A Weak Magnetic Shear On H1-2A Tokamak**

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IAEA-CN-316-3119

Materials: via Indico sever:



## Observations Of Fast Ions Transport Induced By Fishbone Using A Fast Ion Loss Detector On H1-3 Tokamak

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IAEA-CN-316-3133

Materials: via Indico sever:



DRAFT

# **Ion And Electron Heating Via Magnetic Reconnection During Merging/Compression Plasma Startup In St40**

**Hiroshi Tanabe**

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Corresponding Author: Hiroshi Tanabe, [tanabe@k.u-tokyo.ac.jp](mailto:tanabe@k.u-tokyo.ac.jp)

IAEA-CN-316-3137

Materials: via Indico sever:



## Fast Ion Transport Induced By Edge Localized Modes

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IAEA-CN-316-3139

Materials: via Indico sever:



DRAFT

## Progress Of Lower Hybrid Current Drive Experiment Towards Long-Pulse Operation On EAST

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IAEA-CN-316-3147

Materials: via Indico sever:



## Recent Experiments And Development Of Lhcd System On Hl-3

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IAEA-CN-316-3152

Materials: via Indico sever:



DRAFT

# **A New Eigenvalue Solver For Electrostatic Drift-Wave Instabilities In Tokamaks**

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IAEA-CN-316-3158

Materials: via Indico sever:



## Impact Of Long-Term Simulations On Fast Ion Relaxation In Steady-State ITER Scenarios

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IAEA-CN-316-3164

Materials: via Indico sever:



DRAFT

## Progress On Neutronics Densign And Analysis On Fusion Reactors In SWIP

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IAEA-CN-316-3168

Materials: via Indico sever:



## Observation Of Edge Magnetic Islands And 3D Turbulence Structure During Rmp Elm Suppression

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IAEA-CN-316-3180

Materials: via Indico sever:



## **Radiation Shielding Analysis Of Ifmif-Dones Test Cell And Adjacent Rooms**

**Arkady Serikov**

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Corresponding Author: Arkady Serikov, [arkady.serikov@kit.edu](mailto:arkady.serikov@kit.edu)

IAEA-CN-316-3190

Materials: via Indico sever:



## Realization Of Direct Internal Recycling For DEMO Fuel Cycle Based On A Novel Cryopump Configuration

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*ASIPP, China*

Corresponding Author: Zhaoxi Chen, Kexin Lin, Qingxi Yang, Cheng Chen, Guodong Wang, Yuntao Song, *chenzx@ipp.ac.cn*

IAEA-CN-316-3198

Materials: via Indico sever:



## Natural Small Elms Achieved At Low Pedestal Collisionality ( $<1$ ) In A Metal Wall Environment On EAST

Y.F. Wang, H.Q. Wang, X.Q. Xu, G.S. Xu, N.M. Li, Q.Q. Yang, X. Lin, Q. Zang, T. Zhang, Y.F. Jin,  
M.R. Wang, G.Z. Jia, N. Yan, R. Chen, L. Wang

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IAEA-CN-316-3207

Materials: via Indico sever:



# In-Situ Calibration Of Neutron Flux Monitor For HL-3 Tokamak

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IAEA-CN-316-3213

Materials: via Indico sever:



DRAFT

# Kinetic Modeling Of Interactions Among Drift-Alfven Instability, Continuous Spectrum And Energetic Particle In Fusion Experiments

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IAEA-CN-316-3252

Materials: via Indico sever:



# Theoretical Model For The Experimentally Observed GamâŠ Satellites

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IAEA-CN-316-3263

Materials: via Indico sever:



DRAFT

## Average Magnetic Drift Model For Ion Temperature Gradient Driven Instability In Tokamaks

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Corresponding Author: Baobao Jia, [chenguangsha@foxmail.com](mailto:chenguangsha@foxmail.com)

IAEA-CN-316-3264

Materials: via Indico sever:



# Gyrokinetic Simulations Of Pressure Driven Magnetohydrodynamic(MHD) Instabilities In Stellarator

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Corresponding Author: Pengfei Liu, [figoprl1988@gmail.com](mailto:figoprl1988@gmail.com)

IAEA-CN-316-3266

Materials: via Indico sever:



DRAFT

## Comparative Neutronics Analysis Of Three Structures Of Helium - Cooled Blankets For Compact Fusion Reactors

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IAEA-CN-316-3287

Materials: via Indico sever:



# The Research Of The Stability Of Reversed Shear Alfvén Eigenmodes Excited By Energetic Particles In HL-2A

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IAEA-CN-316-3304

Materials: via Indico sever:



DRAFT

# Impact Of Neutral Particles On Beam-Ion Losses In EAST Tokamak

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IAEA-CN-316-3307

Materials: via Indico sever:



## Insights From Fast-Ion Physics Studies On JET In Support Of JT-60SA And ITER Rebaseline

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IAEA-CN-316-3333

Materials: via Indico sever:



# Energetic Particle Distributions For Quantitative Calculations Of Burning Plasma Stability

Guillaume Brochard, Simon Pinches, William W. Heidbrink, Zhihong Lin

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IAEA-CN-316-3339

Materials: via Indico sever:



## Challenges And Achievements In Ifmif-Dones Neutronics Activities

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IAEA-CN-316-3350

Materials: via Indico sever:



DRAFT

# **Analysis Of Fast Ion Distributions Using Neutron Emission Spectroscopy In NBI-Icrf Synergistic Heating Plasma On EAST**

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IAEA-CN-316-3358

Materials: via Indico sever:



# Attaining Tokamak Level Performance Through Plasma Density Profile Shaping At Wendelstein 7-X

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IAEA-CN-316-3085

Materials: via Indico sever:



DRAFT

## **[Regular Poster Twin] Divcontrolnn: A Game-Changer For Real-Time Divertor Plasma Detachment Control In Magnetic Fusion Devices**

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IAEA-CN-316-3410

Materials: via Indico sever:



# Development Of Steady-Sate Operation Scenarios With Full Tungsten LimITER/Divertor In ITER-Relevant Configuration On EAST

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IAEA-CN-316-3215

Materials: via Indico sever:



## **[Regular Poster Twin] Hierarchy Of Turbulent Transport Models With The Soledge3X Code**

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Corresponding Author: Hugo Bufferand, *hugo.bufferand@cea.fr*

IAEA-CN-316-3411

Materials: via Indico sever:



## Long-Pulse Elm-Free H-Mode Regime With Feedback-Controlled Detachment Under Boronized Metal Wall In EAST

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IAEA-CN-316-3116

Materials: via Indico sever:



DRAFT

## **[Regular Poster Twin] Direct Comparison Of Gyrokinetic And Fluid Scrape-Off Layer Simulations**

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Corresponding Author: Akash Shukla, [akashukla@utexas.edu](mailto:akashukla@utexas.edu)

IAEA-CN-316-3412

Materials: via Indico sever:



## WEST Long-Pulse Achievements In Support Of Next-Step Fusion Devices

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IAEA-CN-316-2904

Materials: via Indico sever:



DRAFT

## **[Regular Poster Twin] Validated, Global Edge-Sol Turbulence Simulations In Various Elm-Free Regimes**

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IAEA-CN-316-3414

Materials: via Indico sever:



# Development Of High-Performance Long-Pulse Discharge In KSTAR

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IAEA-CN-316-2961

Materials: via Indico sever:



## **[Regular Poster Twin] Integrated Modelling Activities In Support Of The ITER Re-Baseline**

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IAEA-CN-316-3415

Materials: via Indico sever:



## **[Regular Poster Twin] Transition From Bursting Elms To Continuous Turbulence Fluctuations In High Sol Density Regimes**

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IAEA-CN-316-3436

Materials: via Indico sever:



## [Regular Poster Twin] New Understanding Of Resonant Layer Response Via Extended Drift MHD

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IAEA-CN-316-3438

Materials: via Indico sever:



# Development Of Low Inductive Electric Field Plasma Start-Up In JT-60SA

**Takuma Wakatsuki**

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IAEA-CN-316-2689

Materials: via Indico sever:



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# Comprehensive Simulations Of Bursting And Non-Bursting Alfvén Waves In Icrf Heated Tokamak Plasmas

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IAEA-CN-316-2700

Materials: via Indico sever:



## **[Regular Twin Poster] First SOLPS-ITER Wide Grid Simulations Of The ITER Burning Plasma Scrape-Off Layer**

**Andrei Pshenov, Elizaveta Kaveeva, Ilya Senichenkov, Nikita Shtyrkhunov, Richard Pitts,  
Vladimir Rozhansky, Xavier Bonnin**

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IAEA-CN-316-3441

Materials: via Indico sever:



# Multi-Machine Validation Of Plasma Initiation Modelling And Prospects For Future Devices

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IAEA-CN-316-2754

Materials: via Indico sever:



# Theory And Simulation Of Phase Space Transport In Burning Plasmas

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IAEA-CN-316-3028

Materials: via Indico sever:



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## **[Regular Twin Poster] SOLPS-ITER Simulations Of An X-Point Radiator In The DIII-D High-Beta Hybrid Plasmas**

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Corresponding Author: Xinxing Ma, [maxinxing@fusion.gat.com](mailto:maxinxing@fusion.gat.com)

IAEA-CN-316-3443

Materials: via Indico sever:



# **Development Of Equilibrium Control Simulator And Experimental Validation Of Advanced Iso-Flux Equilibrium Control During The First Operational Phase Of JT-60SA**

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IAEA-CN-316-2898

Materials: via Indico sever:



## **Fusion Alpha-Particle-Driven Alfven Eigenmodes In JET DT Plasmas: Experiments And Theory**

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*UKAEA, United Kingdom*

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IAEA-CN-316-3056

Materials: via Indico sever:



## **[Regular Twin Poster] The Divertor Tokamak Test Facility: Machine Design, Construction And Commissioning**

**Aldo Pizzuto, Alessandro Lampasi, Andrea Reale, Antonio Cucchiaro, Bruno Riccardi, Gian Mario Polli, Gianluca Barone, Giuseppe Ramogida, Lori Gabellieri, Mauro Dalla Palma, Selanna Roccella**

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IAEA-CN-316-3447

Materials: via Indico sever:



## Direct Control Of Turbulence For Improved Plasma Confinement

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IAEA-CN-316-2784

Materials: via Indico sever:



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## Turbulence, Zonal Flows, And Global Modes In Burning Plasmas: Code Development And Simulations

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IAEA-CN-316-2919

Materials: via Indico sever:



## **[Regular Twin Poster] WEST Operation âˆ™ Reliability And Availability Of A Long Pulse Fusion Tokamak**

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IAEA-CN-316-3448

Materials: via Indico sever:



## Simulation Of Alpha Power Dynamics In DIII-D

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IAEA-CN-316-2632

Materials: via Indico sever:



## Plasma Control Experiments In JET Deuterium-Tritium Plasmas

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IAEA-CN-316-3038

Materials: via Indico sever:



## **[Regular Twin Poster] Design And Qualification Activity Of The First Divertor Of The Divertor Tokamak Test Facility**

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IAEA-CN-316-3449

Materials: via Indico sever:



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# Advancing Tritium Fueling For Dt Fusion In Hl-3: Innovations In Smbi Techniques And Physics-Based Tritium Fueling Strategies

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IAEA-CN-316-3117

Materials: via Indico sever:



# **[Regular Twin Poster] Actively Cooled Plasma Facing Components Design For W7-X And JT-60SA In Support Of The ITER Divertor**

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IAEA-CN-316-3450

Materials: via Indico sever:



## **[Regular Twin Poster] Advancing Plasma-Facing Materials For Fusion Pilot Plants At DIII-D**

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IAEA-CN-316-3451

Materials: via Indico sever:



## **[Regular Twin Poster] Performance Evaluation Of Tungsten Fiber-Reinforced Tungsten Composites Developed At SWIP For Application In Nuclear Fusion Reactors**

**Christian Linsmeier, Fan Feng, Jan Willem Coenen, Jianbao Wang, Jiming Chen, Juan Du, Jun Tang, Pan Wen, Qiang Tao, Tianyu Zhao, Xiang Liu, Yiran Mao, Youing Lu, Zhaodong Liu**

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IAEA-CN-316-3452

Materials: via Indico sever:



# Active Tearing Mode Avoidance With Machine Learning Controllers

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IAEA-CN-316-2628

Materials: via Indico sever:



# Effect Of Boron Powder Injection On The Density Limit In The Large Helical Device

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IAEA-CN-316-2646

Materials: via Indico sever:



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## Generalizing Shadow Mask Predictions For Sparc Plasma-Facing Components Using Machine Learning

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IAEA-CN-316-2661

Materials: via Indico sever:



## Enabling Advanced Plasma Shapes On MAST-U Spherical Tokamak

**Andrey Lvovskiy, Himank Anand, Anders Welander, Martin Kochan, Graham McArdle, Charles Vincent, Andrew Nelson, Thomas Osborne, Koki Imada, James Harrison**

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IAEA-CN-316-2671

Materials: via Indico sever:



## Modelling Of H-Mode EAST Edge Plasma With Impurity Seeding By SOLPS-ITER 3.2.0 On Wide Grid

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IAEA-CN-316-2672

Materials: via Indico sever:



## Research On The Relationship Between Microstructure And Mechanical Properties Of Chsn01 Jacket Under Cold Deformation

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IAEA-CN-316-2686

Materials: via Indico sever:



## Disruptions And MHD Instabilities Observed In The Initial Operation Phase Of JT-60SA

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IAEA-CN-316-2690

Materials: via Indico sever:



## Characteristics Of Runaway Electron Loss In The Integrated Commissioning Of JT-60SA

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IAEA-CN-316-2692

Materials: via Indico sever:



## Development Of Pure Boron Pellet For Fusion Reactor

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IAEA-CN-316-2695

Materials: via Indico sever:



# Frequency Hysteresis Of MHD Instabilities In Helical And Tokamak Plasmas

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IAEA-CN-316-2698

Materials: via Indico sever:



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## Verification Of Energetic And Angular Distributions Of Nuclear Fusion Products In Plasmas

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IAEA-CN-316-2708

Materials: via Indico sever:



## Progress In Plasma-Wall Interactions Modelling For EU-DEMO

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IAEA-CN-316-2719

Materials: via Indico sever:



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# **Machine Learning-Based Multimodal Super-Resolution: Experimental Evidence For Elm Suppression Mechanism Through Rmp-Induced Magnetic Island Formation**

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IAEA-CN-316-2725

Materials: via Indico sever:



## Liquid Metal Droplets Systems For Application In Tokamaks And Plasma Devices

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IAEA-CN-316-2745

Materials: via Indico sever:



## The Belgium Contribution To The Development Of Steels For Fusion Applications

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IAEA-CN-316-2759

Materials: via Indico sever:



## Starting Dtt Infrastructures Construction At Enea Frascati Site

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IAEA-CN-316-2764

Materials: via Indico sever:



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# Experimental Analyses And Numerical Modelling Of Trace Neon Shattered Pellet Injection Discharges On JET

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IAEA-CN-316-2799

Materials: via Indico sever:



# Effect Of Collision Processes In Divertor Plasma On The Tokamak Operational Window

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Materials: via Indico sever:



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## **Cryopump And Fuelling Location Impacts On Upstream Density And Detachment On MAST-U**

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IAEA-CN-316-2807

Materials: via Indico sever:



# Learned Models For Integrated Tokamak Scrape-Off Layer Modelling And Design

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IAEA-CN-316-2820

Materials: via Indico sever:



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# Multi-Scale Interaction Near Locked Magnetic Islands And Resulting Disruption Delay In KSTAR

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IAEA-CN-316-2829

Materials: via Indico sever:



## Development Of The Nuclear Radiation Shield Concept For The Volumetric Fusion Source

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Materials: via Indico sever:



## Investigating Of Multi-Scale Instabilities In EAST Ion Temperature Central Peak Discharge

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IAEA-CN-316-2879

Materials: via Indico sever:



# Research On New High-Strength Structural Materials For Low-Temperature Applications In The Next Generation Of Fusion Reactors

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IAEA-CN-316-2884

Materials: via Indico sever:



## Simulations Of Rmp Configurations For Tungsten Impurity Control In EAST Tokamak

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IAEA-CN-316-2893

Materials: via Indico sever:



# Defining Operational Scenarios For Dtt In Metallic Environment: A Modeling Study Of Core-Edge Dynamics And Plasma-Wall Interaction

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IAEA-CN-316-2905

Materials: via Indico sever:



# Impact Of Radiation Distribution On Detachment Onset And Implications For STEP Divertor Design

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Materials: via Indico sever:



# Overview Of Plasma Disruption Mitigation On J-Text Tokamak

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IAEA-CN-316-2915

Materials: via Indico sever:



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## **Deuterium Interaction With Low-Activated Chromium-Manganese Austenitic Steel With Increased Contamination Of Carbide Particles**

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IAEA-CN-316-2931

Materials: via Indico sever:



## Generation And Acceleration Of Steady-State Plasma In Plm-M Device For Testing Of Fusion Materials

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IAEA-CN-316-2933

Materials: via Indico sever:



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## **The Use Of Electron Temperature Collapses And Evolution To Forecast And Avoid Disruptions And Its Application In The KSTAR Device Through Decaf**

**Christopher Ham, David Ryan, Freddie Sheehan, Grant Tillinghast, Guillermo Bustos Ramirez, Hankyu Lee, James Harrison, Joseph Jepson, Juan Riquezes, Jun-Gyo Bak, Keith Erickson, Matt Tobin, Minhoo Woo, Minjun J. Choi, Ricardo Shousha, Sam Blackmore, Steven Sabbagh, Veronika Zamkovska, Y.U. Nam, Young-Seok Park**

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IAEA-CN-316-2947



Materials: via Indico sever:

## Overview Of Error Field Scaling Studies In EAST And Implications For ITER

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Materials: via Indico sever:



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# Elm Suppression By Eccd-Controlled Benign MHD Modes In The KSTAR Tokamak

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IAEA-CN-316-2975

Materials: via Indico sever:



# Dynamics Of Internal Reconnection Events In Versatile Experiment Spherical Torus

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IAEA-CN-316-2977

Materials: via Indico sever:



## Study Of Erosion Of Ceramic Materials Under Transient Thermal Load

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IAEA-CN-316-2983

Materials: via Indico sever:



# **Introduction To Single Crystal Dispersion Interferometer (Scdi) And Its Measurement In KSTAR For Plasma Disruption Mitigation Study**

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IAEA-CN-316-3007

Materials: via Indico sever:



# Data Efficiency And Long-Term Prediction Capabilities For Neural Operator Surrogate Models Of Edge Plasma Codes

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IAEA-CN-316-3013

Materials: via Indico sever:



## Assessment Of B<sub>4</sub>C As First Wall Coating For Thermonuclear Reactor

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IAEA-CN-316-3018

Materials: via Indico sever:



## Challenges In Pwi Modelling For Metallic Devices At The Example Of The EU-DEMO Tokamak

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IAEA-CN-316-3022

Materials: via Indico sever:



## First Quantification Of Volume Recombination In W7-X With EMC3-EIRENE

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IAEA-CN-316-3024

Materials: via Indico sever:



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## Effective Corrosion And Tritium Barrier Coatings In PbLi WCLL-BB

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IAEA-CN-316-3040

Materials: via Indico sever:



## Exhaust Operational Space Assessment For The European Volumetric Neutron Source (Eu-Vns)

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IAEA-CN-316-3048

Materials: via Indico sever:



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# Verification And Optimization Of Vdes By Coupling The Free-Boundary Equilibrium And Transport Codes With Control In The HL-3 Tokamak

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IAEA-CN-316-3058

Materials: via Indico sever:



## Runaway Electrons In JET â Summary On Re Data After The End Of JET Operations

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IAEA-CN-316-3075

Materials: via Indico sever:



## Optimization Of Shattered Pellet Injection (Spi) Composition For Maximal Assimilation

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IAEA-CN-316-3078

Materials: via Indico sever:



## Experimental Research On Magnetohydrodynamic (MHD) Flows In Liquid Metal Cooling Systems For Fusion Reactors

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IAEA-CN-316-3084

Materials: via Indico sever:



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## **A Mechanism To Trigger Edge Localized Mode Crash Due To A Threshold Of Magnetic Perturbation Driven By Peeling-Ballooning Mode**

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IAEA-CN-316-3105

Materials: via Indico sever:



## Progress In The Concept Development Of The Vns - A Beam-Driven Tokamak For Component Testing

Aljaz Cufar, Andrea Quartararo, Andrea Tarallo, CHRISTIAN Bachmann, Cesar Luongo, Christian Hopf, Chuanren Wu, Curt Gliss, David Maisonnier, Domenico Marzullo, Eugenio Vallone, Fabio Vigano, Francesco Maviglia, Gianfranco Federici, Irene Pagani, Ivan Maione, Ivo Moscato, Janos Bajari, Jean Boscary, Jin Hun Park, Joelle Elbez-Uzan, Lorenzo Giannini, Mario Kannmueller, Martin Muscat, Mattia Siccino, Pavel Pereslavl'tsev, Peter Spaeh, Pierluigi Mollicone, Pietro Vinoni, Piotr Marek, Rocco Mozzillo, Sebastien Renard, Simone Carusotti, Sven Wiesen, Thomas Franke, Thomas Haertl, Thomas Steinbacher, Vincenzo Claps, Volker Hauer, roberto ambrosino

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IAEA-CN-316-3126

Materials: via Indico sever:



## Disruption Prediction For Future Tokamak Reactors From Different Perspectives And With Different Methods

Bingjia Xiao, Chengshuo Shen, Dalong Chen, Fengming Xue, Nengchao Wang, Xinkun Ai,  
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IAEA-CN-316-3140

Materials: via Indico sever:



## First Experimental Validation Of The Prototype ITER Hard X-Ray Monitor For Runaway Electron Studies In ADITYA-U Tokamak

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IAEA-CN-316-3159

Materials: via Indico sever:



DRAFT

## Validation Of Plasma -Wall Self-Organization Theory By High Density Limits Achieved On EAST

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IAEA-CN-316-3162

Materials: via Indico sever:



## Experimental Study Of The 2/1 Mode Rmp On The Runaway Current Suppression During Disruptions On J-Text

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IAEA-CN-316-3166

Materials: via Indico sever:



# Decoding The Causes Of High-Density Disruption Through Interpretable Machine Learning

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IAEA-CN-316-3167

Materials: via Indico sever:



## Prediction And Real-Time Control Of The Tokamak L-Mode Density Limit Via Edge Collisionality

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IAEA-CN-316-3176

Materials: via Indico sever:



DRAFT

## Design And Optimization Of Advanced Divertor Configurations For Heat Flux Management In The Ehl-2 Spherical Torus Project

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IAEA-CN-316-3179

Materials: via Indico sever:



## Recent Progress In Improvement Of Atomic And Molecular Process Treatment In Eirene-Ngm

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IAEA-CN-316-3184

Materials: via Indico sever:



# Accelerating Multiscale Simulations Of Irradiated Material Properties Using Machine Learning

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IAEA-CN-316-3186

Materials: via Indico sever:



# Conceptual Design Of The Divertor Tokamak Test (Dtt) Cryogenic System

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IAEA-CN-316-3187

Materials: via Indico sever:



DRAFT

# Advanced Materials To Enable Timely Deployment Of Fusion Energy

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IAEA-CN-316-3188

Materials: via Indico sever:



# **Development Of Reduced-Activation High-Strength High-Conductivity Copper Alloys For Additive Manufacture Of Fusion Reactor Components**

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IAEA-CN-316-3189

Materials: via Indico sever:



## Simulation Of Deuterium-Tritium Isotope Effects On The Divertor Target Heat Flux Density In Cfedr

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IAEA-CN-316-3193

Materials: via Indico sever:



# Progress On The Engineering Qualification Of Cn-Rafm Steel

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IAEA-CN-316-3201

Materials: via Indico sever:



DRAFT

# High Intensity Neutron Source For Fusion Nuclear Technology Development

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IAEA-CN-316-3219

Materials: via Indico sever:



## Active Control Of Internal Disruptions Via Cold Pulse Propagation In ADITYA-U Tokamak.

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IAEA-CN-316-3223

Materials: via Indico sever:



## Calculation Of Dust Grain Charging In Tokamak Plasma Conditions

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IAEA-CN-316-3250

Materials: via Indico sever:



# Analysis And Understanding Of Accelerated Mode Disruptions In The ADITYA-U Tokamak

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IAEA-CN-316-3251

Materials: via Indico sever:



DRAFT

# Impact Of MHD Activity On Energetic Electron Dynamics In LHCD-Assisted Plasma Scenarios In ADITYA-U Tokamak

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IAEA-CN-316-3255

Materials: via Indico sever:



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IAEA-CN-316-3259

Materials: via Indico sever:



## Effect Of Impurity Distribution On The Stability Of Neoclassical Tearing Mode

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IAEA-CN-316-3267

Materials: via Indico sever:



# Plasma Instability Events Detection And Disruption Prediction In EAST Tokamak Via Heterogeneous-Feature Multi-Task Learning

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IAEA-CN-316-3276

Materials: via Indico sever:



## Simulation Study On Tungsten First Wall Erosion And Impurity Transport In EAST Tokamak

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IAEA-CN-316-3285

Materials: via Indico sever:



# The Radiative Divertor And In/Out Asymmetry In H1-2M By Impurity Seeding With Full Drifts

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IAEA-CN-316-3288

Materials: via Indico sever:



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# Cluster Dynamics Modeling Of Defect Evolution In Neutron-Irradiated Tungsten For Fusion Applications

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IAEA-CN-316-3295

Materials: via Indico sever:



## Plasma Transport Study With 3D Shaped First Wall For Limiter Ramp-Up Phase Of ITER

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IAEA-CN-316-3298

Materials: via Indico sever:



DRAFT

## Simulation Of Hydrogen Isotope Retention In Tungsten Under Fusion-Relevant Conditions

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IAEA-CN-316-3300

Materials: via Indico sever:



## Modeling Of Wall Material Evolution And The Impact On Edge Particle Recycling For Long Pulse Discharges In EAST

Guoliang XU, Hui Wang, Jin Guo, Junlin Chen, Qian Long, Ran Hai, Rui Ding, Wei Zheng, Xue Bai, Yunjia Zhang

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IAEA-CN-316-3309

Materials: via Indico sever:



## Development Of A Three-Dimensional Simulation Code For Scrape-Off Layer Plasmas

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IAEA-CN-316-3313

Materials: via Indico sever:



# **The Influence Of EÃB Drift Combined With Divertor Dome On Plasma Detachment In CFTR By Using SOLPS-ITER**

**Xuele Zhao**

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IAEA-CN-316-3316

Materials: via Indico sever:



DRAFT

# Cermet Alloys For Hybrid Fission-Fusion Nuclear Reactor

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IAEA-CN-316-3318

Materials: via Indico sever:



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## Exploration Of Ohmic Plasma Current Control Strategies For The ADITYA-U Tokamak

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IAEA-CN-316-3328

Materials: via Indico sever:



## **Sans Investigation Of Precipitate Evolution And Optimum Tempering Temperature Of Rafm Nuclear Reactor Steel And Weld**

**Gokulnath Kadavath**

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IAEA-CN-316-3331

Materials: via Indico sever:



# Simulation Of Fuel Inventory In Damaged Tungsten Under Simultaneous Hydrogen And Deuterium: Synergistical Effect Of Defect Annealing And Isotope Exchange

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IAEA-CN-316-3338

Materials: via Indico sever:



# **3-Dimensional Vacuum Field Modeling And Edge Plasma Response To Applied Radial Magnetic Perturbation In ADITYA-U Tokamak**

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IAEA-CN-316-3343

Materials: via Indico sever:



# Multi-Device Rotating MHD Mode Lock And Disruption Forecaster With Real-Time Feedback For Disruption Avoidance

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IAEA-CN-316-3361

Materials: via Indico sever:



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## Error Field Identification Through Torque Balance On A Magnetic Island With Rotating Magnetic Perturbation

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IAEA-CN-316-3363

Materials: via Indico sever:



## High-Heat-Flux Performance Of Monoblock Target Prepared With Advanced W-K Plate

Fan Feng, Jianbao Wang, Lian Youyun, Song Jiupeng, Xiang Liu

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IAEA-CN-316-3365

Materials: via Indico sever:



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# The Interaction Between The Edge Dislocation And The Dislocation Loop-Bubble Complex Under Shear Stress In Bcc Iron

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IAEA-CN-316-3366

Materials: via Indico sever:



# Integrated Disruption Mitigation Planning On Tokamak Power Reactors And Its Physics Bases

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IAEA-CN-316-3367

Materials: via Indico sever:



## Physical Model For Testing Structural Materials Of Fusion Reactors Under Plasma And Thermal Impact

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IAEA-CN-316-3370

Materials: via Indico sever:



## **JOREK Simulation Of Injection Assimilation And Radiation Asymmetry During ITER H-Mode Dual SPIs**

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IAEA-CN-316-2678

Materials: via Indico sever:



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# Neutronics For ITER Nuclear Phase: Insights And Lessons Learnt From JET DT Operation

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IAEA-CN-316-2937

Materials: via Indico sever:



# **[Regular Twin Poster] H-Mode Operation Scenarios In JT-60SA Initial Research Phase Predicted By Integrated Core-Pedestal-SOL/Divertor Simulation**

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IAEA-CN-316-3453

Materials: via Indico sever:



# Hybrid Kinetic-MHD Studies Of Runaway Electron Beam Termination Events

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IAEA-CN-316-2721

Materials: via Indico sever:



# Anticipating Tritium Impact And Transfer In Fission And Fusion Powerplants

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IAEA-CN-316-2934

Materials: via Indico sever:



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## [Regular Twin Poster] Uk STEP Towards A Fusion Power Plant Plasma

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IAEA-CN-316-3454

Materials: via Indico sever:



## Overview Of The Dc11 Breeding Blanket For Helias 5-B And Further Steps Towards A Novel Qi Device

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IAEA-CN-316-2911

Materials: via Indico sever:



DRAFT

# **Modelling Of Mildly Relativistic Runaway Electrons â"Development Of Reduced-Kinetic Model And Validation In KSTAR Ohmic Startup**

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IAEA-CN-316-2988

Materials: via Indico sever:



**[Regular Twin Poster] A Tale Of Two (Visco)Cities  
Electromagnetic Turbulence And Transport Bifurcations:  
Implications For Next- Generation Fusion Power Plants**

**Daniel Kennedy**

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IAEA-CN-316-3455

Materials: via Indico sever:



## Piecewise Omnigenous Fields: A Radically New Family Of Optimized Magnetic Fields For Stellarator Reactors

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IAEA-CN-316-2922

Materials: via Indico sever:



# Experimental Study On Tritium Release From Li<sub>2</sub>TiO<sub>3</sub> Pebbles As Tritium Breeder Through International Collaboration Between Korea And China

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IAEA-CN-316-2963

Materials: via Indico sever:



# A Novel Method To Optimize Omnigenity Like Quasisymmetry For Stellarators

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IAEA-CN-316-3330

Materials: via Indico sever:



# **[Regular Twin Poster] Integrated Modeling Of DIII-D Super H-Mode Using Improved Pedestal Physics And Integrated Core-Pedestal-Boundary Physics To Optimize Fusion Performance**

**Kyungjin Kim**

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Corresponding Author: Kyungjin Kim, *kimk2@ornl.gov*

IAEA-CN-316-3456

Materials: via Indico sever:



## **Accomplishment Of High Duty Cycle Beam Commissioning Of Linear Ifmif Prototype Accelerator (Lipac) At 5 Mev, 125 Ma D+**

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IAEA-CN-316-2992

Materials: via Indico sever:



# **[Regular Twin Poster] Global Dispersion And Nonlinear Dynamics In Plasmas Modeled For Jt-60U Strongly Reversed Magnetic Shear Configuration Exhibiting A Signature Of Itbs From L-Mode Characteristics**

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IAEA-CN-316-3457

Materials: via Indico sever:



## **[Regular Twin Poster] Automatic Between-Shot Kinetic Equilibria And Neutral Beam-Heat Load On DIII-D Using Supercomputers**

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IAEA-CN-316-3458

Materials: via Indico sever:



## **[Regular Twin Poster] Development Of Data Assimilation System Asti Toward Digital Twin Control Of Fusion Plasma**

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IAEA-CN-316-3459

Materials: via Indico sever:



DRAFT

# **Theory-Based Integrated Modelling Of Tungsten Transport: Validation In Present-Day Tokamaks And Predictions For ITER**

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IAEA-CN-316-2857

Materials: via Indico sever:



## Overview Of Recent Results In Research Tacking Remote Maintenance Challenges Of Future Fusion Energy Devices

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IAEA-CN-316-3154

Materials: via Indico sever:



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## **[Regular Twin Poster] ITER Disruption Mitigation System Design And Application Strategy**

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IAEA-CN-316-3460

Materials: via Indico sever:



## Testing Tungsten Plasma Facing Components In WEST And AUG Tokamaks : Lessons For ITER

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IAEA-CN-316-2938

Materials: via Indico sever:



# Qualification, Fabrication, And Commissioning Of High-Temperature Superconducting Magnets For Compact Fusion

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IAEA-CN-316-3369

Materials: via Indico sever:



# **[Regular Twin Poster] Trt Plasma Control Complexes Conceptual Design On The Base Of The ITER Fusion Technology Development**

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IAEA-CN-316-3461

Materials: via Indico sever:



## Performance Of JT-60SA Superconducting Magnet Operation In Integrated Commissioning Test

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IAEA-CN-316-2727

Materials: via Indico sever:



## Numerical Modeling And Experimental Assessment Of RF Sheath Generation Due To Far-Field RF Electric Field

James Myra, James Paul Gunn, Julien Hillairet, Laurent COLAS, Masayuki Ono, Nicola Bertelli, Paul Bonoli, Raymond Diab, Ricardo De Levante Rodriguez, Seung Gyou Baek, Stephen Wukitch, Syun'ichi Shiraiwa, Wouter Tierens

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IAEA-CN-316-3039

Materials: via Indico sever:



# **[Regular Twin Poster] Artificial Intelligence For Tokamak Fusion: Advancements In Diagnostics, Control, And Scenario Optimization**

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IAEA-CN-316-3462

Materials: via Indico sever:



## Results Of Electron Cyclotron Heating And Current Drive System Operation In The Integrated Commissioning Phase On JT-60SA

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IAEA-CN-316-2693

Materials: via Indico sever:



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## First Performance Test Of Multi-Frequency Gyrotron For ITER And Fusion Devices

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IAEA-CN-316-2703

Materials: via Indico sever:



# Simulation Of Tungsten Erosion And Edge-To-Core Transport In Neon-Seeded JET Plasmas

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IAEA-CN-316-2761

Materials: via Indico sever:



## **[Regular Twin Poster] Development Of Low Inductive Electric Field Plasma Start-Up In JT-60SA**

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IAEA-CN-316-3463

Materials: via Indico sever:



## Progress Towards Development Of Prototype Radio Frequency Source For ITER Ion Cyclotron Resonance Heating System

Ajesh Palliwar, Akhil JHA, Aparajita Mukherjee, Hrushikesh dalicha, Kartik Mohan, Manoj Patel, NavinKumar Maurya, Navnit Kumar, Paresh Vasava, RAJNISH KUMAR, Raghuraj Singh, Rajesh Trivedi, Rohit Anand, Sunil Dani, Ulhas Dethe, dipal soni, gajendra suthar, sriprakash verma

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IAEA-CN-316-3290

Materials: via Indico sever:



## **Tungsten LimITER Start-Up Experiments In Different Boronization States In Support Of ITER**

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IAEA-CN-316-3308

Materials: via Indico sever:



## **[Regular Twin Poster] Multi-Machine Validation Of Plasma Initiation Modelling And Prospects For Future Devices**

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IAEA-CN-316-3464

Materials: via Indico sever:



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## Developing Long Pulse Hybrid Scenario In DIII-D And KSTAR For W-Compatible Steady-State Operation Toward ITER

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IAEA-CN-316-2631

Materials: via Indico sever:



## Construction Progress Of Chinese First Quasi-Axisymmetric Stellarator (Cfqs) And Preliminary Results In The Cfqs-Test Device

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IAEA-CN-316-3249

Materials: via Indico sever:



## [Regular Twin Poster] Direct Control Of Turbulence For Improved Plasma Confinement

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IAEA-CN-316-3465

Materials: via Indico sever:



# **[Regular Twin Poster] Development Of Equilibrium Control Simulator And Experimental Validation Of Advanced Iso-Flux Equilibrium Control During The First Operational Phase Of JT-60SA**

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IAEA-CN-316-3466

Materials: via Indico sever:



## **[Regular Twin Poster] Plasma Control Experiments In JET Deuterium-Tritium Plasmas**

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IAEA-CN-316-3467

Materials: via Indico sever:



## **[Regular Twin Poster] Simulation Of Alpha Power Dynamics In DIII-D**

**Adam McLean, Charles Greenfield, Francesca Turco, Gerald Navratil, Jeremy Hanson, Tomas Odstrcil, William Boyes**

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IAEA-CN-316-3468

Materials: via Indico sever:



# **[Regular Twin Poster] Comprehensive Simulations Of Bursting And Non-Bursting Alfvén Waves In Icrf Heated Tokamak Plasmas**

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IAEA-CN-316-3469

Materials: via Indico sever:



## **[Regular Twin Poster] Turbulence, Zonal Flows, And Global Modes In Burning Plasmas: Code Development And Simulations**

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IAEA-CN-316-3470

Materials: via Indico sever:



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## **[Regular Twin Poster] Theory And Simulation Of Phase Space Transport In Burning Plasmas**

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IAEA-CN-316-3471

Materials: via Indico sever:



## **[Regular Twin Poster] Fusion Alpha-Particle-Driven Alfven Eigenmodes In JET DT Plasmas: Experiments And Theory**

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IAEA-CN-316-3472

Materials: via Indico sever:



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**[Regular Twin Poster] Advancing Tritium Fueling For Dt Fusion  
In HL-3: Innovations In Smbi Techniques And Physics-Based  
Tritium Fueling Strategies**

**Guoliang Xiao**

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IAEA-CN-316-3473

Materials: via Indico sever:



# System Architecture For Actuator Management In ITER PCS

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IAEA-CN-316-2619

Materials: via Indico sever:



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## **Fusion Twin Platform: An Innovative Tool For Fusion Research And Education**

**Alexei Zhurba**

*Next Step Fusion, Luxembourg*

Corresponding Author: Alexei Zhurba, [akz@nextfusion.org](mailto:akz@nextfusion.org)

IAEA-CN-316-2620

Materials: via Indico sever:



# Performance Optimisation Of Tokamak Operation In ASDEX Upgrade Through Novel Feedback Control Capabilities

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IAEA-CN-316-2623

Materials: via Indico sever:



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# **Rapid, Robust, Real-Time AI-Based Plasma Equilibrium Profile Reconstruction And Control On DIII-D**

**Jaemin Seo, Peter Steiner, Ricardo Shousha**

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IAEA-CN-316-2627

Materials: via Indico sever:



## **Demonstration Of Vertical Stability Control Based On Non-Inductive Faraday-Effect Polarimetry Measurements On DIII-D**

**Thomas Benedett, Anthony Xing, Jie Chen, Jayson Barr, David Brower, Daniel Finkenthal,  
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IAEA-CN-316-2630

Materials: via Indico sever:



## Exploration Of High-Performance Pedestals And Eped Model Validation In Shape And Volume Rise (Svr) Studies On DIII-D

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IAEA-CN-316-2642

Materials: via Indico sever:



# Observation And Control Of 3D Heat Flux On The Plasma Facing Component In Wendelstein 7-X

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IAEA-CN-316-2668

Materials: via Indico sever:



# Use Of Nuclear Spectrometry To Monitor Fusion Rate, Fast Particles And Runaway Electrons In Tokamak Plasmas

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IAEA-CN-316-2677

Materials: via Indico sever:



# Development Of ITER High-Fidelity Plasma Simulator Based On Jintrac And Dina, And Strategy For Validation

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IAEA-CN-316-2753

Materials: via Indico sever:



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# Intra-Shot Tools For Plasma Scenario Optimization And Magnetic Control

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IAEA-CN-316-2757

Materials: via Indico sever:



# **Multi-Field Turbulence And Transport Barrier Measurements And Validating Predictive Codes For High-Performance, Negative Triangularity Elm-Free DIII-D Plasmas**

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IAEA-CN-316-2772

Materials: via Indico sever:



# Pushing Boundaries Of Integrated Modeling With Improved Gpu-Enhanced Performance And Validated Gyrokinetic Model In Transp Code

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IAEA-CN-316-2776

Materials: via Indico sever:



## Enhanced H-Mode By Boron Powder Injection And Implications For Reactors

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IAEA-CN-316-2825

Materials: via Indico sever:



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# Overview Of The European Contribution To The Diagnostic Equipment Of JT-60SA For The Next Operational Phases

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IAEA-CN-316-2827

Materials: via Indico sever:



# Machine Enhancement Of Tokamak Device For The JT-60SA Next Operation

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IAEA-CN-316-2835

Materials: via Indico sever:



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## Estimation Of Plasma Parameters Based On Discharge Settings On WEST

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IAEA-CN-316-2841

Materials: via Indico sever:



# Bayesian Data Fusion For Enhanced Edge Plasma Density Profile Estimation In KSTAR

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IAEA-CN-316-2849

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## Developing Open Machine Learning Benchmarks For Tokamak Event Prediction From MAST

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IAEA-CN-316-2852

Materials: via Indico sever:



# Study Of Plasma-Edge Turbulence Reduction In Negative Triangularity Plasmas Using Thermal Helium Beam Diagnostic In The TCV Tokamak

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IAEA-CN-316-2858

Materials: via Indico sever:



## A Human-In-The-Loop Active Learning Tool For Event Detection In Tokamak Discharges

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IAEA-CN-316-2861

Materials: via Indico sever:



# **A Multiscale And Multiphysics Approach To The Development Of A High-Fidelity Physics Plasma Simulator For Burning Plasma**

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IAEA-CN-316-2869

Materials: via Indico sever:



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## Density Limit In Peeling-Limited Pedestals At And Above The Greenwald Value In DIII-D High Poloidal Beta Plasmas

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IAEA-CN-316-2888

Materials: via Indico sever:



## **Zonal Flows In Stellarators: Experimental Measurements, Code Validation And Implications For Future Reactors**

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IAEA-CN-316-2901

Materials: via Indico sever:



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# Sawtooth Crashes Prediction Using A Convolutional Neural Network On EAST

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IAEA-CN-316-2920

Materials: via Indico sever:



# **Ai-Augmented Scenario Design And Classical Control Of Tokamak Plasmas**

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IAEA-CN-316-2932

Materials: via Indico sever:



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# Self-Organized States Of Alfvén Eigenmodes And Zonal Modes Via Cross-Scale Interactions

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IAEA-CN-316-2969

Materials: via Indico sever:



# Energy Exchange Between Electrons And Ions Induced By Itg-Tem Turbulence

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IAEA-CN-316-2972

Materials: via Indico sever:



# Gyrokinetic Analysis For Electron-Scale Turbulence In KSTAR Fire Mode Discharge

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IAEA-CN-316-2974

Materials: via Indico sever:



# Leveraging Turbulence Data From Fusion Experiments

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IAEA-CN-316-2976

Materials: via Indico sever:



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# Theory Of Fast Ion Population Effect On Turbulence Self-Regulation In Magnetized Fusion Plasmas

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IAEA-CN-316-2984

Materials: via Indico sever:



## Growing Nonlinearity In KSTAR Fire Mode Pedestal Provides Clue To Undesirable H-Mode Transition In I-Mode Plasmas

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IAEA-CN-316-2986

Materials: via Indico sever:



DRAFT

## **A Simulation Study Of Plasma Breakdown In The Tokamak Electron Cyclotron Pre-Ionization Phase**

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IAEA-CN-316-2994

Materials: via Indico sever:



## Flux-Driven Simulations Of Self-Generated Radial Electric Fields And Transition To Improved Confinement Regime

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IAEA-CN-316-2995

Materials: via Indico sever:



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# Effects Of Finite Ion Temperature And Its Gradient On Hasegawa-Mima Equation And Zonal Flow Generation

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IAEA-CN-316-2998

Materials: via Indico sever:



# Advancing The Concept Of The Quasi-Isodynamic Stellarator As The Basis For A Fusion Reactor

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IAEA-CN-316-3001

Materials: via Indico sever:



DRAFT

## Features Of Fusion Power Measurements In The Next Generation Magnetic Plasma Confinement Experiments

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IAEA-CN-316-3019

Materials: via Indico sever:



# Coupling Of Geodesic Acoustic Modes And Resonant Magnetic Perturbations In Fusion Plasmas

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IAEA-CN-316-3031

Materials: via Indico sever:



DRAFT

# New Insights On The Quasicoherent Mode In Eda High Confinement Discharges

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IAEA-CN-316-3033

Materials: via Indico sever:



# Surrogate Model For Turbulent Transport Using Deep Learning And Plasma Profile Prediction In Tokamak Plasmas

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IAEA-CN-316-3046

Materials: via Indico sever:



DRAFT

## Evolution Of Confinement Physics And Most Probable Compact Ignition Test Device In Magnetic Fusion

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IAEA-CN-316-3064

Materials: via Indico sever:



# Application Of A Design Structure Matrix Methodology To STEP Plasma Control System Design And Sensor Optimisation

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IAEA-CN-316-3068

Materials: via Indico sever:



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## Tangential Injection Of Compact Torus Fueling In The HL-3 Tokamak Using The HL-Cti Injector

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IAEA-CN-316-3071

Materials: via Indico sever:



# **Demonstration And Investigation Of A Reactor-Relevant, Low-Collisionality, High-Performance, Intrinsic Grassy ELM Regime In DIII-D**

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IAEA-CN-316-3082

Materials: via Indico sever:



# **Tokamak Formation Via Localized Helicity Injection Using Tangential Boundary Flows**

**Pablo Garcia-Martinez, hugo ferrari, Ricardo Farengo**

*CONICET - Centro Atomico Bariloche, Argentina*

Corresponding Author: Pablo Garcia-Martinez, hugo ferrari, Ricardo Farengo, [pablogm@cab.cnea.gov.ar](mailto:pablogm@cab.cnea.gov.ar)

IAEA-CN-316-3091

Materials: via Indico sever:



## Nonlocal Behavior Of Turbulence In The Presence Of Poloidally Localized Heat Source

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IAEA-CN-316-3096

Materials: via Indico sever:



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## Operational Space Of Small Elm And Elm-Free Regimes On H1-3 Tokamak

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*VALUE!, China*

Corresponding Author: Na Wu, [wuna@swip.ac.cn](mailto:wuna@swip.ac.cn)

IAEA-CN-316-3115

Materials: via Indico sever:



# **Progress Of Core-Edge Integrated Tungsten Transport Study In EAST With ITER-Like Tungsten Divertors Using Advanced Impurity Diagnostics**

**Ling ZHANG**

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Corresponding Author: Ling ZHANG, [zhangling@ipp.ac.cn](mailto:zhangling@ipp.ac.cn)

IAEA-CN-316-3123

Materials: via Indico sever:



# Engineering Design, Construction, And Flexible Control Of Magnetic Field Configuration Of Quasi-Axisymmetric Stellarator Cfqs-T

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*National Institute for Fusion Sciences, Japan*

Corresponding Author: Mitsutaka Isobe, Akihiro Shimizu, [isobe.mitsutaka@nifs.ac.jp](mailto:isobe.mitsutaka@nifs.ac.jp)

IAEA-CN-316-3136

Materials: via Indico sever:



## Characteristics Of High Frequency Turbulence During Edge Localized Modes In The H1-2A Tokamak

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IAEA-CN-316-3138

Materials: via Indico sever:



DRAFT

## **A Physics-Informed Neural Network For Real-Time, Data-Efficient Plasma Equilibrium Reconstruction In Sunist-2**

**Yuhang Luo, Yifeng Zhang, Borui Jiang, Li Ma, Binbin Wang, Shouzhi Wang, Yi Tan, Rui Chen**

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IAEA-CN-316-3153

Materials: via Indico sever:



# A Proposed New Experimental Stellarator: Variable Symmetry Torus

**Hiroyuki Yamaguchi**

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IAEA-CN-316-3157

Materials: via Indico sever:



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## Investigation Of Transient Transport Dynamics Induced By Compact Torus Injection In The EAST Tokamak

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IAEA-CN-316-3161

Materials: via Indico sever:



## Plasma State Discovery Using Bayesian Methods

Ivan Kharitonov

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Corresponding Author: Ivan Kharitonov, *ikh@nextfusion.org*

IAEA-CN-316-3170

Materials: via Indico sever:



DRAFT

## **Sawteeth Dynamics In JT-60SA Baseline Scenarios With Effects On Ntm Onset**

**Silvana NOWAK**

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IAEA-CN-316-3171

Materials: via Indico sever:



# Neural Network Assisted Electrostatic Global Gyrokinetic Toroidal Code Using Cylindrical Coordinates

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*Indian Institute of Science Bangalore, India*

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IAEA-CN-316-3172

Materials: via Indico sever:



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# Simulating Energetic Particle Dynamics Using Operator Neural Networks With Spatial Translation Invariance

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Corresponding Author: Jian LIU, *liu\_jian@sdu.edu.cn*

IAEA-CN-316-3195

Materials: via Indico sever:



## Experimental Studies On The Effect Of Turbulence-Driven Edge Poloidal Shear Flow On Tokamak Plasma Confinement

Ting Long, Patrick H. Diamond, Rui Ke, Zhi Chen, Rongjie Hong, Xin Xu, Wenjing Tian, Jinming GAO, Guoliang Xiao, Zhongbing Shi, Wei Chen, Wulyu Zhong

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IAEA-CN-316-3199

Materials: via Indico sever:



# Fast Ion Transport In Presence Of Magnetic Perturbations Using Full-Orbit And Guiding-Center Simulations

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IAEA-CN-316-3202

Materials: via Indico sever:



# Magnetic Flux Surface Mapping System At Chinese First Quasi-Axisymmetric Stellarator

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IAEA-CN-316-3205

Materials: via Indico sever:



# Progress On Real-Time Density Control Capability Of The KSTAR Tokamak

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IAEA-CN-316-3209

Materials: via Indico sever:



# Dynamics Of Turbulence And Zonal Flows Effected By Tungsten Impuitty In Hl-2A Edge Plasmas

**Qian Zou**

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Chengdu 610031, Peopleâ€™s Republic of China, China*

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IAEA-CN-316-3211

Materials: via Indico sever:



## Manipulating Ambipolar Electric Field To Improve Confinement In Stellarators

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IAEA-CN-316-3220

Materials: via Indico sever:



# Transport Properties Of Trapped-Electron-Mode Turbulence Interacting With Tearing Modes In Tokamak Plasmas

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IAEA-CN-316-3221

Materials: via Indico sever:



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# Novel Effects Of Edge-Localised Rmps And Plasma Density On The L-H Transitions And Turbulence

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IAEA-CN-316-3227

Materials: via Indico sever:



# Advancing Pedestal Stability Prediction Through Integrated Equilibrium And Resistive MHD Modeling

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IAEA-CN-316-3230

Materials: via Indico sever:



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## Development Of Ai Framework For Plasma Equilibrium Parameters Generation For Virtual Tokamak Environment

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Corresponding Author: Agraj Abhishek, [agraj@ipr.res.in](mailto:agraj@ipr.res.in)

IAEA-CN-316-3238

Materials: via Indico sever:



# Reinforcement Learning-Based Plasma Shape Control Via Isoflux Scheme On Superconductor Tokamak

Haoyu Wang, Yuehang Wang, Wenhui Hu, Heru Guo, Yao Huang, Kai Wu, Zhengping Luo,  
Ruirui Zhang, Qiping Yuan, Bingjia Xiao

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IAEA-CN-316-3254

Materials: via Indico sever:



## Characteristics Of Edge Quasi-Coherent Mode In The Eda H-Mode On HL-3

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Corresponding Author: Anshu Liang, [anshuliang@gmail.com](mailto:anshuliang@gmail.com)

IAEA-CN-316-3271

Materials: via Indico sever:



# **Strongly Rotating St P-11B Fusion Plasmas A Data-Based Model To Raise Confinement And Fusion Reaction Rate Is Proposed**

**Yueng-Kay Martin PENG**

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Corresponding Author: Yueng-Kay Martin PENG, *pengykm2@gmail.com*

IAEA-CN-316-3282

Materials: via Indico sever:



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## **Perturbated Magnetic Field Threshold Of Edge Coherent Oscillation During Elm Mitigation By $N = 1$ And $N=2$ Rmp**

**Tengfei Sun**

*Southwestern Institute of Physics, China*

Corresponding Author: Tengfei Sun, [suntf@swip.ac.cn](mailto:suntf@swip.ac.cn)

IAEA-CN-316-3286

Materials: via Indico sever:



# Experimental Research On The Penetration Behavior Of Compact Toroid Fueling On EAST

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Corresponding Author: Yahao Wu, [yahwu@163.com](mailto:yahwu@163.com)

IAEA-CN-316-3297

Materials: via Indico sever:



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# **Development & Validation Of Control System For Operation Of 170Ghz, 1Mw, 1000S Gyrotron At ITER-India Gyrotron Test Facility**

**Ronak Shah**

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Corresponding Author: Ronak Shah, [ronak.shah@iterindia.in](mailto:ronak.shah@iterindia.in)

IAEA-CN-316-3301

Materials: via Indico sever:



# Study Of Reversed Magnetic Shear Configuration In ADITYA-U Tokamak

Gopal Krishna M

*Institute for Plasma Research, India*

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IAEA-CN-316-3303

Materials: via Indico sever:



## Experimental Observation Of Zonal Flow-Like Oscillation In Chinese First Quasi-Axisymmetric Stellarator-Test Device

Xi Chen

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Corresponding Author: Xi Chen, [marguerite@my.swjtu.edu.cn](mailto:marguerite@my.swjtu.edu.cn)

IAEA-CN-316-3317

Materials: via Indico sever:



# **Temo: A Comprehensive And Versatile Equilibrium Modelling Toolbox For Tokamak Operations**

**Zhengbo Cheng**

*Shaanxi Startorus Fusion Technology Company Limited, China*

Corresponding Author: Zhengbo Cheng, 1102981539@qq.com

IAEA-CN-316-3322

Materials: via Indico sever:



DRAFT

# **Innovative And Efficient Plasma Magnetic Confinement Method Based On An Overlooked Historical Discovery**

**Martin STOREY**

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IAEA-CN-316-3329

Materials: via Indico sever:



## Examining Boundaries For Operation On Alcator C-Mod From The Separatrix Perspective And Projection To Sparc

Adam Kuang, Amanda Hubbard, Amelia Cavallaro, Brian LaBombard, Davide Silvagni, Dennis Whyte, George TYNAN, Jamie Dunsmore, Jerry Hughes, Marco Miller, Michael Wigram, Ondrej Grover, Peter Manz, Saskia Mordijck, Thomas Body, Thomas Eich

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IAEA-CN-316-3335

Materials: via Indico sever:



## Plasma Current And Position Control In Ktm Tokamak

**Aleksei Li, Baurzhan Chektybayev, Denis Zarva, Dmitri Olkhovik, Erlan Baryrbekov, Irina Tazhibayeva, Rustam Khayrutdinov, Stepan Merkulov, Vadim Pavlov, Vladimir Dokuka, Yuri Golobokov**

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IAEA-CN-316-3344

Materials: via Indico sever:



# Plasma Prediction And Simulation In Support Of Reactor Design And Operation At Tokamak Energy

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IAEA-CN-316-3351

Materials: via Indico sever:



DRAFT

## Development Of Data Assimilation System Asti Toward Digital Twin Control Of Fusion Plasma

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IAEA-CN-316-2739

Materials: via Indico sever:



## H-Mode Operation Scenarios In JT-60SA Initial Research Phase Predicted By Integrated Core-Pedestal-Sol/Divertor Simulation

**Nobuyuki AIBA**

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IAEA-CN-316-2890

Materials: via Indico sever:



DRAFT

## **[Regular Poster Twin] Characterization Of Runaway Impact On Instrumented Sacrificial Limiters On DIII-D**

**Eric Hollmann**

*UC San Diego, United States*

Corresponding Author: Eric Hollmann, [ehollmann@gmail.com](mailto:ehollmann@gmail.com)

IAEA-CN-316-3430

Materials: via Indico sever:



## **Automatic Between-Shot Kinetic Equilibria And Neutral Beam-Heat Load On DIII-D Using Supercomputers**

**Mark Kostuk**

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IAEA-CN-316-2670

Materials: via Indico sever:



DRAFT

## Uk STEP Towards A Fusion Power Plant Plasma

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Corresponding Author: Hendrik Meyer, [hendrik.meyer@ukifs.uk](mailto:hendrik.meyer@ukifs.uk)

IAEA-CN-316-2940

Materials: via Indico sever:



# **[Regular Poster Twin] Thermal Quench Dynamics And Heat Flux Distribution During Massive-Impurity-Injection Triggered Disruption In EAST**

**Di Hu, Long Zeng, Wei Xia**

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IAEA-CN-316-3431

Materials: via Indico sever:



# **A Tale Of Two (Visco)Cities Electromagnetic Turbulence And Transport Bifurcations: Implications For Next- Generation Fusion Power Plants**

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IAEA-CN-316-3074

Materials: via Indico sever:



# Artificial Intelligence For Tokamak Fusion: Advancements In Diagnostics, Control, And Scenario Optimization

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IAEA-CN-316-3191

Materials: via Indico sever:



DRAFT

# **[Regular Poster Twin] Changes In Disruption Dynamics During The First Operation Of A Runaway Electron Mitigation Coil (Remc) On A Tokamak**

**Jeffrey Levesque**

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IAEA-CN-316-3432

Materials: via Indico sever:



# ITER Disruption Mitigation System Design And Application Strategy

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IAEA-CN-316-2847

Materials: via Indico sever:



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# Global Dispersion And Nonlinear Dynamics In Plasmas Modeled For Jt-60U Strongly Reversed Magnetic Shear Configuration Exhibiting A Signature Of Itbs From L-Mode Characteristics

Rui Zhao, Kenji Imadera, Jianfu Liu, Wei WANG, Jiquan Li, Zheng-Xiong Wang, Akihiro Ishizawa, Yasuaki Kishimoto

*Kyoto University, Japan*

Corresponding Author: Rui Zhao, Kenji Imadera, Jianfu Liu, Wei WANG, Jiquan Li, Zheng-Xiong Wang, Akihiro Ishizawa, Yasuaki Kishimoto, [zhao.rui.27d@st.kyoto-u.ac.jp](mailto:zhao.rui.27d@st.kyoto-u.ac.jp)

IAEA-CN-316-3124

Materials: via Indico sever:



# **[Regular Poster Twin] First Demonstration Of Disruption Avoidance By Real-Time Physics-Based Disruption Event Characterization And Forecasting On KSTAR**

**Steven Sabbagh**

*Columbia University, United States*

Corresponding Author: Steven Sabbagh, [sabbagh@pppl.gov](mailto:sabbagh@pppl.gov)

IAEA-CN-316-3433

Materials: via Indico sever:



## Trt Plasma Control Complexes Conceptual Design On The Base Of The ITER Fusion Technology Development

Anatoly Krasilnikov

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Corresponding Author: Anatoly Krasilnikov, [a.krasilnikov@iterrf.ru](mailto:a.krasilnikov@iterrf.ru)

IAEA-CN-316-3015

Materials: via Indico sever:



# **Integrated Modeling Of DIII-D Super H-Mode Using Improved Pedestal Physics And Integrated Core-Pedestal-Boundary Physics To Optimize Fusion Performance**

**Kyungjin Kim**

*Oak Ridge National Laboratory, United States*

Corresponding Author: Kyungjin Kim, [kimk2@ornl.gov](mailto:kimk2@ornl.gov)

IAEA-CN-316-3086

Materials: via Indico sever:



## **[Regular Poster Twin] Analysis And Simulation Of Effective Runaway Electron Mitigation Using A Passive Coil In J-Text Tokamak**

**Chang Liu, Chang Liu**

*Peking University, China*

Corresponding Author: Chang Liu, Chang Liu, [goduck777@gmail.com](mailto:goduck777@gmail.com)

IAEA-CN-316-3434

Materials: via Indico sever:



# The Impact Of A Flying Collector On Runaway Electrons During Current Disruption In A Tokamak

**Boris Kuteev, Sergey Bashkatov, Vladimir Sergeev**

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IAEA-CN-316-2723

Materials: via Indico sever:



DRAFT

## Catalogue-Based Reverse Engineering: For Ai-Based Modelling In Fusion Remote Maintenance Equipment Design

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IAEA-CN-316-2797

Materials: via Indico sever:



## **Recent Progress Of Dissimilar Material Bonding Technique With Spark Plasma Sintering Method For High Heat Load Plasma Facing Components In Reactor-Relevant Devices**

**Tomohiro Morisaki**

*National Institute for Fusion Science, Japan*

Corresponding Author: Tomohiro Morisaki, [morisaki@nifs.ac.jp](mailto:morisaki@nifs.ac.jp)

IAEA-CN-316-3127

Materials: via Indico sever:



# **A Novel Computation Of The Linear Plasma Response To A Resonant Error Field In Single-Fluid Visco-Resistive MHD And Application To The RFXmod2 Tokamak**

**paolo zanca**

*consorzio rfx, Italy*

Corresponding Author: paolo zanca, [paolo.zanca@igi.cnr.it](mailto:paolo.zanca@igi.cnr.it)

IAEA-CN-316-2791

Materials: via Indico sever:



## Development Of In-Vessel Rail Deployment And Connection Method For ITER Blanket Remote Maintenance

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IAEA-CN-316-2694

Materials: via Indico sever:



## Tests Of Ultrasonic Lithium Injector With External Lithium Supply System On Tokamak T-11M

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IAEA-CN-316-2767

Materials: via Indico sever:



## Application Of Low-Z Materials For Enhancing H Mode Plasma Performance And Pulse Duration In EAST With Full Metal Wall

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IAEA-CN-316-2883

Materials: via Indico sever:



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## Next-Generation Coil Power Supply System For The Tokamak: Design, Implementation, And Operational Performance

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IAEA-CN-316-3240

Materials: via Indico sever:



# Dynamic Evolution Of Multi-Physics-Dependent Non-Uniform Inter-Turn Contact Resistivity In No-Insulation Rebco Magnets: Modeling And Experimental Validation

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IAEA-CN-316-2710

Materials: via Indico sever:



## The Effect Of W Surface Fuzz Induced By He Plasma On Deuterium Permeation

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IAEA-CN-316-3310

Materials: via Indico sever:



## **Bb Segment Grasping Pipeline With Variable Admittance Control For EU DEMO Remote Maintenance**

**Hjalte Durocher, Xingyu Yang**

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Corresponding Author: Hjalte Durocher, Xingyu Yang, [hdu@mpe.au.dk](mailto:hdu@mpe.au.dk)

IAEA-CN-316-3059

Materials: via Indico sever:



## Accessing Stable Operational Windows In K-DEMO

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IAEA-CN-316-3315

Materials: via Indico sever:



## **Design, Development & Testing Of Toroidal Field Power Supply (Tfps) For Small-Scale Spherical Tokamak (Ss-St)**

**Urmil Thaker**

*Institute for Plasma Research, India*

Corresponding Author: Urmil Thaker, [umthaker@ipr.res.in](mailto:umthaker@ipr.res.in)

IAEA-CN-316-3265

Materials: via Indico sever:



## Deuterium Gas-Driven Permeation And Retention In La<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, And ZrO<sub>2</sub> Dispersion-Strengthened Tungsten

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IAEA-CN-316-3296

Materials: via Indico sever:



## Design Studies On Advanced Self-Cooled Liquid Test Blanket Modules For JA-DEMO

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IAEA-CN-316-3100

Materials: via Indico sever:



DRAFT

# Development Status Of In-Vessel Components Inspection And Pipe Maintenance Robot For K-DEMO And Fusion Experimental Device

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IAEA-CN-316-2970

Materials: via Indico sever:



## Numerical Analysis Of Peeling-Ballooning Stability At Various Triangularities In Globus-M2

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IAEA-CN-316-2817

Materials: via Indico sever:



DRAFT

## **X Point Effects On The Tokamak Stability And Confinement In The Description Of Dual-Poloidal-Region Safety Factor**

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IAEA-CN-316-2722

Materials: via Indico sever:



# Experimental And Modeling Studies Of Boron Injection And Deposition In Support Of ITER

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IAEA-CN-316-3092

Materials: via Indico sever:



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## Recent Progress Of Libra Project And New Tbr Measurements

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IAEA-CN-316-2826

Materials: via Indico sever:



## Development Of Meter-Scale Large W/Cu Divertor Components For Fusion Reactor At Asipp

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IAEA-CN-316-3146

Materials: via Indico sever:



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## R&D On W First Wall For ITER And Future Fusion Reactors

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IAEA-CN-316-3194

Materials: via Indico sever:



# Experimental Verification Of AlâOâ-Insulated Non-Inductive RebcO Coil Array In Quench Detection For Central Solenoids Of Tokamaks

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IAEA-CN-316-3306

Materials: via Indico sever:



# Strong Toroidal Electric Field Generation During Sawtooth Crashes

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IAEA-CN-316-3005

Materials: via Indico sever:



## Study Of Impurity Particulate Dynamics And Impurity Transport Using The DiMES Pellet Launcher In DIII-D

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IAEA-CN-316-2636

Materials: via Indico sever:



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## **Analytical Approach To Calculation Of Disruption-Induced Vertical Force On The Tokamak Wall**

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IAEA-CN-316-2748

Materials: via Indico sever:



## Simulation Of Stochastic Transport And Deposition Of Seed Runaway Electrons During ITER SPI

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IAEA-CN-316-2978

Materials: via Indico sever:



# Impurity Radiation Seeding Of Neoclassical Tearing Mode Growth

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IAEA-CN-316-2876

Materials: via Indico sever:



# Simulation Of Runaway Electron Avalanche In Iter Disruption

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IAEA-CN-316-3036

Materials: via Indico sever:



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# Investigating The Formation And Growth Of Fuzzy Nano-Structures Due To The Interaction Of Helium Plasma With Tungsten Utilizing A Dc Glow Discharge Plasma Device

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IAEA-CN-316-2734

Materials: via Indico sever:



# **Infernal-Kink Instability In Negative-Triangularity Plasamas With Negative Central Shear**

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IAEA-CN-316-3208

Materials: via Indico sever:



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# The ITER Tungsten First Wall

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IAEA-CN-316-2909

Materials: via Indico sever:



## WEST Advanced Wall Protection Achievements Toward Long Pulse Operation

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Materials: via Indico sever:



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# Augmenting The Extrapolation Capability Of Disruption Prediction To Extended Parameter Regimes By Predict-First Neural Network

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IAEA-CN-316-3178

Materials: via Indico sever:



# Improvements Of Magnet Power Supply System And Achievements In Coil Energization Tests For First Plasma Of JT-60SA

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IAEA-CN-316-3043

Materials: via Indico sever:



## **A Material Database Of Ss316L(N)-Ig For ITER Blanket Shield Blocks**

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IAEA-CN-316-3008

Materials: via Indico sever:



## Material Migration And Erosion Of Plasma-Facing Components In The Full-Tungsten WEST Tokamak During Its Phase 1 And Phase 2 Operations

Alexis Huart, Anastasios Lagoyannis, Anna Widdowson, Antti Hakola, Celine Martin, Eduard Grigore, Elodie Bernard, Elzbieta Fortuna-Zalesna, Emmanuelle Tsitrone, Indrek J  gi, Iva Bogdanovic Radovic, Jari Likonen, Karl Krieger, Konstantina Mergia, MATHILDE DIEZ, Martin Balden, Mitja Kelemen, Nicolas Fedorczak, Pavlos Tsavalas, Peeter Paris, Per Petersson, Rodrigo Mateus, Sabina Markelj, Stefano Di Genova, Tomi Vuoriheimo, Zdravko Siketic, jonathan gaspar, yann corre

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IAEA-CN-316-2788

Materials: via Indico sever:



# Optimal Design Of Fast Plasma Boundary Control Considering Vertical Instability Features Using In-Vessel Coils In JT-60SA

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IAEA-CN-316-2716

Materials: via Indico sever:



# A Novel High-Temperature Superconducting Cable Design For Compact Tokamaks

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IAEA-CN-316-3299

Materials: via Indico sever:



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# Anisotropic Peeling-Ballooning Mode Scans Of JET-Like Equilibric

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IAEA-CN-316-3280

Materials: via Indico sever:



# Nonlinear Magnetohydrodynamic Modelling Of Ideal Ballooning Modes In High-Beta Wendelstein 7-X Plasmas

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IAEA-CN-316-3108

Materials: via Indico sever:



# **Achieving Full-Coverage Liquid Gainsn Film Flow Under Magnetic Fields: Synergistic Effects Of Wettability Optimization And Dual-Layer Structural Design**

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IAEA-CN-316-3212

Materials: via Indico sever:



# **Fusion Magnet Power Equipment Installation Design Based On Multi-Physics Field Coupling And Modular Optimization**

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IAEA-CN-316-3017

Materials: via Indico sever:



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# Tungsten Dust Transport In The Stor-M Tokamak

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IAEA-CN-316-3218

Materials: via Indico sever:



## Development And Validation Of Magneto-Hydrodynamic Turbulence Models For The Thermal-Hydraulic Design Of Arc-Class Fusion Reactor Liquid Blankets

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IAEA-CN-316-3236

Materials: via Indico sever:



# Nonlinear Self-Consistent Dynamics Of Geodesic Acoustic Modes And Zonal Flows In Toroidally Rotating Tokamak Plasmas

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IAEA-CN-316-3268

Materials: via Indico sever:



## 3D Hybrid Fluid-Kinetic Simulations Of Large Scale Plasma Instabilities In Runaway Electron Beams

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IAEA-CN-316-3045

Materials: via Indico sever:



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# **Design And Test Of A Unified Modular Pulsed Power Supply For All Magnets Of The Negative Triangularity Spherical Tokamak (Ntst)**

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IAEA-CN-316-3217

Materials: via Indico sever:



# **Breakthrough In Performance Degradation Of ITER Central Solenoid Conductors Owing To Short-Twist-Pitch Cabling And Suppression Of Bending Strain**

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IAEA-CN-316-2953

Materials: via Indico sever:



## WEST Wall Conditioning With Boron: Lessons For ITER And Fusion Power Plants

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IAEA-CN-316-3072

Materials: via Indico sever:



## **[Regular Twin Poster] A Novel Method To Optimize Omnigenity Like Quasisymmetry For Stellarators**

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IAEA-CN-316-3478

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## **[Regular Twin Poster] Overview Of The DcII Breeding Blanket For Helias 5-B And Further Steps Towards A Novel Qi Device**

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IAEA-CN-316-3479

Materials: via Indico sever:



## Overview Of UKAEAâˆ™S Integrated Fusion Technology Programmes, Emphasising A Digital First Strategy

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IAEA-CN-316-3065

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## **[Regular Twin Poster] Anticipating Tritium Impact And Transfer In Fission And Fusion Powerplants**

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IAEA-CN-316-3480

Materials: via Indico sever:



# **Raising Fusion Readiness By Addressing Plasma-Material Interactions And Fusion Nuclear Science With Linear Plasma Devices, An Overview.**

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IAEA-CN-316-2663

Materials: via Indico sever:



## **[Regular Twin Poster] Neutronics For ITER Nuclear Phase: Insights And Lessons Learnt From JET DT Operation**

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IAEA-CN-316-3481

Materials: via Indico sever:



## Overview Of Achievements And Outlook Of The Ifmif/Eveda Project

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## Overview Of The Dones Experimental Programme

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IAEA-CN-316-3069

Materials: via Indico sever:



# **[Regular Twin Poster] Experimental Study On Tritium Release From $\text{Li}_2\text{Tio}_3$ Pebbles As Tritium Breeder Through International Collaboration Between Korea And China**

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IAEA-CN-316-3482

Materials: via Indico sever:



# **[Regular Twin Poster] Accomplishment Of High Duty Cycle Beam Commissioning Of Linear Ifmif Prototype Accelerator (Lipac) At 5 Mev, 125 Ma D+**

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IAEA-CN-316-3483

Materials: via Indico sever:



## Overview Of St40 Results And Future: Expanding The Physics Basis Of High-Field Spherical Tokamaks

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IAEA-CN-316-3337

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# **[Regular Twin Poster] Developing Long Pulse Hybrid Scenario In DIII-D And KSTAR For W-Compatible Steady-State Operation Toward ITER**

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IAEA-CN-316-3484

Materials: via Indico sever:



## Recent Advances At The Globus-M2 Tokamak

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IAEA-CN-316-2866

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## **[Regular Twin Poster] Simulation Of Tungsten Erosion And Edge-To-Core Transport In Neon-Seeded JET Plasmas**

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# Strategic Plan To Demonstrate Heatwave-Driven Laser Fusion With Fast Ignition Scheme

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IAEA-CN-316-2828

Materials: via Indico sever:



# **[Regular Twin Poster] Theory-Based Integrated Modelling Of Tungsten Transport: Validation In Present-Day Tokamaks And Predictions For ITER**

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IAEA-CN-316-3486

Materials: via Indico sever:



## **[Regular Twin Poster] Testing Tungsten Plasma Facing Components In WEST And AUG Tokamaks : Lessons For ITER**

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IAEA-CN-316-3487

Materials: via Indico sever:



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## **[Regular Twin Poster] Numerical Modeling And Experimental Assessment Of Rf Sheath Generation Due To Far-Field Rf Electric Field**

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IAEA-CN-316-3488

Materials: via Indico sever:



## **[Regular Twin Poster] Tungsten LimITER Start-Up Experiments In Different Boronization States In Support Of ITER**

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IAEA-CN-316-3489

Materials: via Indico sever:



## **[Regular Twin Poster] Results Of Electron Cyclotron Heating And Current Drive System Operation In The Integrated Commissioning Phase On JT-60SA**

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IAEA-CN-316-3490

Materials: via Indico sever:



## **[Regular Twin Poster] First Performance Test Of Multi-Frequency Gyrotron For ITER And Fusion Devices**

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IAEA-CN-316-3491

Materials: via Indico sever:



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## **[Regular Twin Poster] Performance Of JT-60SA Superconducting Magnet Operation In Integrated Commissioning Test**

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IAEA-CN-316-3492

Materials: via Indico sever:



## **[Regular Twin Poster] Overview Of Recent Results In Research Tacking Remote Maintenance Challenges Of Future Fusion Energy Devices**

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IAEA-CN-316-3493

Materials: via Indico sever:



## **[Regular Twin Poster] Progress Towards Development Of Prototype Radio Frequency Source For ITER Ion Cyclotron Resonance Heating System**

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IAEA-CN-316-3495

Materials: via Indico sever:



## **[Regular Twin Poster] Qualification, Fabrication, And Commissioning Of High-Temperature Superconducting Magnets For Compact Fusion**

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Materials: via Indico sever:



## Remote Handling Strategy Of Volumetric Neutron Source Blanket

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Materials: via Indico sever:



# **Recovery Behavior Of High-Purity Cubic Sic For First-Wall Applications In Fusion Reactors By Post-Irradiation Annealing After Low-Temperature Neutron Irradiation**

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IAEA-CN-316-2742

Materials: via Indico sever:



## Reference Governor For Plasma Scalar Control To Prevent Stability Limit Breaches In Tokamaks

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IAEA-CN-316-2684

Materials: via Indico sever:



## Overview Of The Recent Experimental Studies Of Plasma-Facing Components Irradiated With Divertor Relevant Plasma

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Materials: via Indico sever:



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# **Conjugate Heat Transfer Large Eddy Simulation Of A Hypervapotron: From Incipient Nucleate Boiling To Critical Heat Flux**

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IAEA-CN-316-2980

Materials: via Indico sever:



# Virtual Tokamak For Integrated Physics And Engineering Analysis

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Materials: via Indico sever:



## Fusion-Relevant Tritium Interactions With Ss316L Stainless Steel

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IAEA-CN-316-3357

Materials: via Indico sever:



## Formation Of Fractal Substance In Thermonuclear Facilities With High Heat Flux To Materials

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Materials: via Indico sever:



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# Electron Density Window On The Suppression Of Spontaneous Neoclassical Tearing Mode With High Fraction Of Bootstrap Current

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IAEA-CN-316-2786

Materials: via Indico sever:



# Wall Conditioning Plasma Production Using Fundamental And Second Harmonic Electron Cyclotron Waves In JT-60SA

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IAEA-CN-316-2839

Materials: via Indico sever:



## Experimental Study On The Migration Process Of Adatom In The Growth Dynamic Of Fuzz

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IAEA-CN-316-3312

Materials: via Indico sever:



# **A Possible Method To Implement Passive 3D Coils For Runaway Electron Suppression In Future Reactor-Scale Tokamaks**

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Materials: via Indico sever:



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# **N=0 Vertical Displacements, Impact Of Magnetic X-Points, And Vertical Displacement Oscillatory Modes Driven By Fast Ions In Tokamak Plasmas**

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IAEA-CN-316-3073

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## Force-Electric Coupling Characteristics Of Corc Cables Under Bending Load

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# The 4C Code As A Candidate Tool For The Qualified Analysis Of Superconducting Magnets In The Licensing Of Nuclear Fusion Reactors

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IAEA-CN-316-3009

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# Synchrotron Radiation From Runaway Electrons And Positrons In Lorentzian Plasmas

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Materials: via Indico sever:



## Studies On Low Energy Helium Plasma Exposure Behaviour Of Tungsten-Based High Entropy Alloy

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# Bounce-Averaged Fluid Equations For Interchange Dynamics In A Dipole-Confined Plasma

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# Nonlinear Simulations Of Core Density Collapses In Large Helical Device

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# **Runaway Electron Avalanche And Energy Deposition During Scraping-Off Of Vertically Unstable Disruption Generated Runaway Beams**

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IAEA-CN-316-2626

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# Eliminating Tokamak Major Disruptions With Feedback

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IAEA-CN-316-2640

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## Csmc Power Supply System Completes Dc 48Ka Steady State Output Experiment

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IAEA-CN-316-2662

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# High-Fidelity Warpx Simulations Of Long-Lived Advanced Frcs

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IAEA-CN-316-2669

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# **Automated Design Rationalization Of Robot Component Configuration For In-Vessel Task Of ITER Blanket Remote Handling System**

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IAEA-CN-316-2699

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## 3D Modelling Of Thermal Loads During Unmitigated Vertical Displacement Events In ITER And JET

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## Performance Of Li- And Sn-Filled Cps Targets Under The Transient Plasma Loads In Qspa

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## Europeâˆ™S Cutting-Edge Handling Systems For The ITER Assembly In The Pre-Start Of Research Operations Phase

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## Modeling Of Heat Flux On The Main Limiter In EAST

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## Structure Design Of Poloidal Horseshoe Limiter For Pulse Operation Heat Load In Ja DEMO

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## STEP Inboard System âˆ™ Architecture And Technology Development Overview

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IAEA-CN-316-2928

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# The Development Of 3D MHD Code In Comsol Multiphysics And Its Application For MHD Flow In Rippled Magnetic Field

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IAEA-CN-316-3203

Materials: via Indico sever:



## Progress Of Hts Magnet Technology Development For The Next Generation Fusion Device At Asipp

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# Experimental And Numerical Research On High-Temperature Superconducting Demountable Joints For Toroidal Field Coils Of Tokamaks

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IAEA-CN-316-3294

Materials: via Indico sever:



## Hydrogen Isotope Retention Behavior In Wtavr High-Entropy Alloy For Fusion Applications

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IAEA-CN-316-3311

Materials: via Indico sever:



## **Towards A Stellarator Fusion Reactor: Achievements Of The European Stellarator Program**

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## STEP: Driving A Pathway To Accelerated Fusion Delivery

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IAEA-CN-316-3055

Materials: via Indico sever:



## **Tokamak Energy'S High Temperature Superconducting Magnet Spherical Tokamak Fusion Pilot Plant Concept**

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IAEA-CN-316-3341

Materials: via Indico sever:



## **Establishment And Progress Of K-DEMO Design Activities: A Coordinated National Approach For Future Fusion DEMOnstration Reactor**

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Materials: via Indico sever:



# **Fusion Research And Development Strategy For JA DEMO Investigated In QST**

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# **Core And Edge Transport Of Scenario With Internal Transport Barrier In Tritium And Deuterium-Tritium Plasmas In JET With Be/W Wall**

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## **[Regular Twin Poster] Analysis Of Fuel Retention And Recovery In JET With Be-W Wall**

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IAEA-CN-316-3446

Materials: via Indico sever:



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## **Achievement Of A High-Density, High-Confinement, And High Beta Tokamak Plasma Regime For ITER And FPP**

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IAEA-CN-316-2946

Materials: via Indico sever:



# **[Regular Twin Poster] JOEREK Simulation Of Injection Assimilation And Radiation Asymmetry During ITER H-Mode Dual SPIs**

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## Development Of High Poloidal Beta Scenario For Long-Pulse Operation In Collaboration Between DIII-D And KSTAR

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IAEA-CN-316-2965

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## [Regular Twin Poster] Hybrid Kinetic-MHD Studies Of Runaway Electron Beam Termination Events

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Materials: via Indico sever:



# **Peeling Limited Pedestals In JET, MAST-U And TCV: Effect Of Density And Isotope Mass In Deuterium And Tritium-Rich Plasma On Pedestal Structure And Stability And Validation Of Pedestal Predictions For ITER.**

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IAEA-CN-316-2845

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## **[Regular Twin Poster] Piecewise Omnigenous Fields: A Radically New Family Of Optimized Magnetic Fields For Stellarator Reactors**

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# High Pedestal Pressure Path To High Fusion Performance Leveraging The New "Shape And Volume Rise" Divertor On DIII-D

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IAEA-CN-316-2771

Materials: via Indico sever:



# **[Regular Twin Poster] Modelling Of Mildly Relativistic Runaway Electrons - Development Of Reduced-Kinetic Model And Validation In KSTAR Ohmic Startup**

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