

Webinars on Nuclear Fusion Research

Participation is free for all interested.
The number of participants is limited to maximum 100.
The full programme is attached below.

The third webinar takes place on
Wednesday 13 October 2021, 16:00

where

Prof. Thomas Klinger
Director of the Division Stellarator Dynamics and Transport
Director of the Project Wendelstein 7-X

will present

"The long way to steady-state fusion plasmas
The superconducting stellarator experiment Wendelstein 7-X"



Prof. Thomas Klinger obtained his habilitation in 1998 and shortly thereafter he was appointed Professor of Experimental Physics at the University of Greifswald. In April 2001 he was appointed as Scientific Member of the Max-Planck Society and Director at the Max-Planck-Institute of Plasma Physics (IPP) in Greifswald. He is head of the "Stellarator Dynamics and Transport" Division and since 2005 scientific director of the project Wendelstein 7-X as well as member of the Directorate of IPP.

Wendelstein 7-X is designed to generate high-power hydrogen plasmas under steady-state conditions, more specifically for 1800 s duration at 10 MW plasma heating power. This talk provides a review of the key physics subjects of optimized stellarators. We also summarize the adventurous undertaking to construct such a first-of-a-kind device as well as the most important findings during the first operation phases of Wendelstein 7-X. This concerns stable operation of high-performance plasmas for several 10 up to 100 s, stellarator record values for the combined value of density, temperature and confinement time, plasma impurity transport, and the controlled plasma-wall contact.

Connection to the Webinar by Zoom link:

<https://us02web.zoom.us/j/85774373614?pwd=d05mMlJBTmRBN25vck41UHcvU29ldz09>

Meeting ID: 857 7437 3614

Passcode: 925343

The joint BPS-ISI Webinars are held on Wednesday afternoons at 16:00 to allow, in particular, the participation of secondary school teachers.

Exceptions to this fixed schedule are indicated in **red**

Each presentation lasts about 45 minutes, followed by questions/answers.

Full Programme of the BPS-ISI Joint Webinars on NUCLEAR FUSION RESEARCH

Wednesday 29 September 2021, 16:00

Dr. Julien Hillairet, Directeur de Recherches, Institut de Recherche sur la Fusion Magnétique, CEA Cadarache, France

"Introduction to nuclear fusion research"

Tuesday 5 October 2021, 16:00

Dr. Alberto Loarte, Head of the ITER Science Division, Science, Controls and Operation Department, ITER Organization, Cadarache, France

"Objectives and status of the ITER project, the first fusion reactor under construction"

Wednesday 13 October 2021, 16:00

Prof. Dr. Thomas Klinger, Director of the Division Stellarator Dynamics and Transport, Director of the Project Wendelstein 7-X, Max Planck Institute for Plasma Physics, Greifswald, Germany

**"The long way to steady-state fusion plasmas
The superconducting stellarator experiment Wendelstein 7-X"**

Wednesday 20 October 2021, 18:00

Dr. Juan Knaster
Deputy Head of ITER Programme Department, F4E at ITER Organisation, Cadarache, France

"Materials research for fusion: availability of fusion relevant neutron sources"

Wednesday 27 October 2021, 16:00

Prof. Dr. Vladimir Tikhonchuk,
Centre Lasers Intenses et Applications, Université de Bordeaux, France

"Inertial fusion research: physics, status and latest results"

Connection to each of the above Webinars is by Zoom link:

<https://us02web.zoom.us/j/85774373614?pwd=d05mMIJBTmRBN25vck41UHcvU29ldz09>

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