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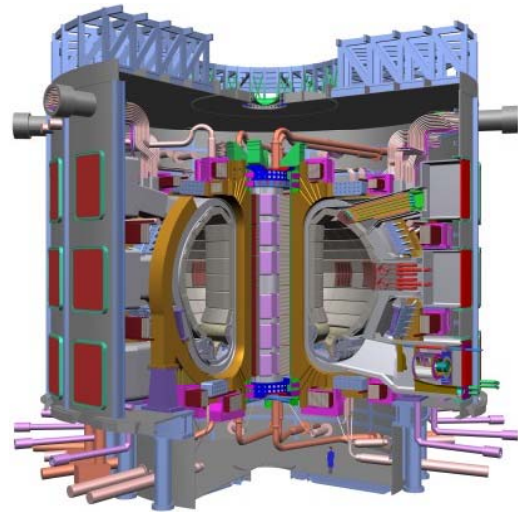
Magnetic Fusion Enters the Burning Plasma Era

APS-DPP celebrates the 50th anniversary of magnetic fusion research

DALLAS, Texas—This year marks the 50th anniversary of the founding of the American Physical Society Division of Plasma Physics, and it is also the 50th anniversary of the unveiling of magnetic fusion research at the Second United Nations Conference on Peaceful Uses of Atomic Energy, held in 1958 in Geneva, Switzerland. Magnetic fusion now stands at the threshold of its most important scientific test – the exploration of sustained burning plasmas that are self-heated by fusion reaction products and that produce significant amounts of fusion energy.

During the past few years, seven international parties (Europe, Japan, Russia, South Korea, China, India and the United States) representing over half of the world's population have joined in the world's first truly international scientific mega-project, ITER, to accomplish the critical mission of demonstrating the scientific and technological feasibility of fusion energy for peaceful purposes. This year, construction begins at the ITER site in Cadarache, France as the first agreements on hardware procurement in the ITER member countries have been reached.

The APS-DPP annual meeting will include sessions that offer a detailed look at the history of magnetic fusion science and the status of the ITER project:



ITER

Magnetic Confinement: Establishing the Principles through Experiment

The foundations for magnetic fusion science developed over the past 50 years will be described in a review paper by Stewart Prager of the University of Wisconsin. The presentation will describe the discoveries in plasma physics that have enabled a 10 million-fold increase in fusion power produced experimentally during this time period.

Research in Support of ITER

During the past year, a concerted international experimental and theoretical effort has been underway to finalize the design of ITER. The detailed scientific contributions of the plasma physics community will be summarized in a series of fourteen oral presentations in this special session. These results have been critical in providing the latest scientific results to the ITER team procuring the hardware needed for construction.

Town Meeting on ITER

This meeting will include presentations on the scientific status of ITER by Dr. David Campbell (ITER International Organization), the Programmatic Status of ITER by Dr. Charles Baker (U.S. member of the ITER Management Advisory Committee), and U.S. plans for Burning Plasma Research by Dr. Jim Van Dam (U.S. Burning Plasma Organization).

Contacts

Magnetic Confinement: Establishing the Principles through Experiment

Speaker: Stewart Prager, University of Wisconsin

Session AR0 ,

8:00 AM–8:36AM, Monday, Nov. 17, 2008

Research in Support of ITER

Chair: Charles Greenfield, General Atomics

Session GO3

9:45AM– 2:33PM, Tuesday, Nov. 18, 2008

Town Meeting on ITER

Chair: Amanda Hubbard, Massachusetts Institute of Technology

Session LE2

7:30PM–9:30PM, Tuesday, Nov. 18, 2008

Additional Information

22nd IAEA Fusion Energy Conference, October 13-18, 2008, Geneva, Switzerland

“Celebrating fifty years of fusion.....entering into the burning plasma era”

(<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=165>)

- 50 years of Fusion and the Way Forward, Jean Jacquinot, France
- Highlights of 50 Years of Fusion Research, Dale Meade, USA

ITER: <http://www.iter.org>

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