

**FIRST ANNOUNCEMENT AND CALL FOR PAPER****The 18th International Toki Conference (ITC18) on  
Development of Physics and Technology of  
Stellarator/Heliotrons  
en route to Demo**

December 9 - 12, 2008  
Ceratopia Toki, Toki-City, Gifu, Japan

**INTRODUCTION**

The ITC-18 will be held in Toki, Japan, by the National Institute for Fusion Science (NIFS). Since its establishment in 1989, the NIFS has organized the ITC as an annual meeting for fusion related sciences.

Recent developments in experimental, theoretical and technical research show the clear route to the realization of a stellarator/heliotron type demo fusion reactor. ITC18 will be devoted to review the recent developments and to discuss the next steps forward to the demo reactor realization of stellarator/heliotron type. Topics related to any type of demo reactor other than stellarator/ heliotron are also welcome. Basic plasma research related to this issue is also within the scope of the conference.

The working language is English. The conference program format will consist of plenary sessions, invited talks and oral & poster presentations. Papers accepted after the usual review processes will be published in a scientific journal.

**LIST OF TOPICS**

The following topics will be discussed from physical and technological points of view:

1. **Recent Experimental Projects**
2. **Confinement Physics**
  - 2-1. Transport and confinement improvement
  - 2-2. MHD equilibrium and stability
  - 2-3. Turbulence and transport
  - 2-4. Divertor physics/technology
  - 2-5. Impurity control/transport
  - 2-6. Plasma wall interaction
  - 2-7. Energetic particle physics
3. **New Concept/DEMO**
  - 3-1. Configuration optimization/New devices
  - 3-2. DEMO/Reactor studies of all fusion concepts
4. **Steady State Operation**
  - 4-1. Steady state operation
  - 4-2. Steady state technology
5. **Heating and Fueling**
  - 5-1. Heating physics/technology
  - 5-2. Fueling physics/technology
6. **Magnet, Utilities and other Technology**
7. **Diagnostics**
  - 7-1. Advanced diagnostics
  - 7-2. New concept
  - 7-3. Diagnostics for ITER/DEMO
8. **Basic Plasmas and Related Physics**

## PLACE

Ceratopia Toki Conference Hall  
Toki-City 509-5121, Gifu-ken, JAPAN.

## CONFERENCE DATE

December 9(Tue.) - 12(Fri.), 2008.

## LANGUAGE

English is the official language of the conference.

## ABSTRACT SUBMISSION

Authors are requested to submit one-page abstracts on-line by August 31, 2008. Papers should contain original and previously unpublished work on the conference topics. Abstracts should be sufficiently detailed in describing the aim of the work and the obtained results. The Program Committee will select the papers on the basis of the submitted abstracts. Authors will be notified on acceptance of abstracts and assignment of their papers into sessions by September 30, 2008. The accepted abstracts will be bound as a booklet and distributed to participants at the Conference. They will be posted on the Conference web site as well.

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## IMPORTANT DATES

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| 2nd announcement:                                    | August 1, 2008        |
| Deadline for abstract submission:                    | August 31, 2008       |
| Notification of abstract acceptance:                 | September 30, 2008    |
| Deadline for pre-registration and hotel reservation: | October 31, 2008      |
| Deadline for paper submission:                       | December 9, 2008      |
| Conference:  | December 9 - 12, 2008 |

**Official Web-site will be opened soon.**