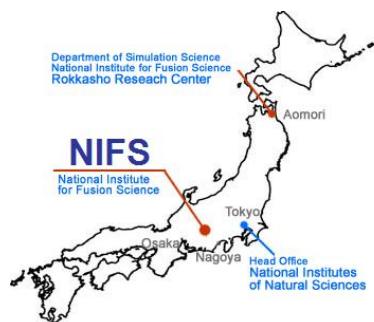


# Announcement of the US-Japan MHD Workshop: “Effect of 3D Magnetic Field on MHD Equilibrium and Stability: toward optimum control of toroidal plasmas” to be held jointly with ITPA MHD and EP Topical Group Meetings

Date: Mar. 5-9, 2012

Place: National Institute for Fusion Science (NIFS), Toki, Japan



## Organizing Committee (Provisional):

S. Masamune (Kyoto Inst. Tech.), K.Y. Watanabe (NIFS), K. Yamazaki (Nagoya U.),  
G. Matsunaga (JAEA), M. Okabayashi (PPPL), J. Sarff (U. Wisconsin)

Previous Joint Meetings of US-Japan Workshop and ITPA Meetings include:

- Joint Meeting of US-Japan MHD Workshop and The15th ITPA MHD Stability Topical Group Meeting, Mar. 8-12, NIFS, Toki, 2010.
- Joint Meetings of IEA Large Tokamak Workshop, US-Japan MHD Workshop and ITPA MHD Topical Group Meeting, Feb. 25-29, JAEA, Naka, 2008.
- US-Japan MHD Workshop and The 7th Meeting of the ITPA MHD Topical Group, Feb. 6-9, JAEA, Naka, 2006.

# Scope

In toroidal plasmas, active or passive external field, either resonant or non-resonant, will result in **new 3D perturbed MHD equilibrium with magnetic island and/or with stochastic region**. Now the field is considered the most probable candidate as the MHD control tool.

The purpose of the workshop (1) :

to obtain deeper understanding of the **plasma response to the external magnetic perturbation including error field, as phenomena common to toroidal plasmas such as tokamak, helical, and RFP plasmas.**

In such a 3D perturbed MHD equilibrium state, MHD instabilities will have strong influence on plasma performance.

# Scope

The second purpose (2):

to obtain deeper understanding of linear growth and nonlinear saturation of MHD instabilities in such a 3D perturbed MHD equilibrium.

It is quite important to develop optimized plasma control scheme on the basis of our deep understanding of the 3D magnetic field effect, in order to realize high-performance fusion plasmas.

# Topics

Topics of interest will include, but not be limited to:

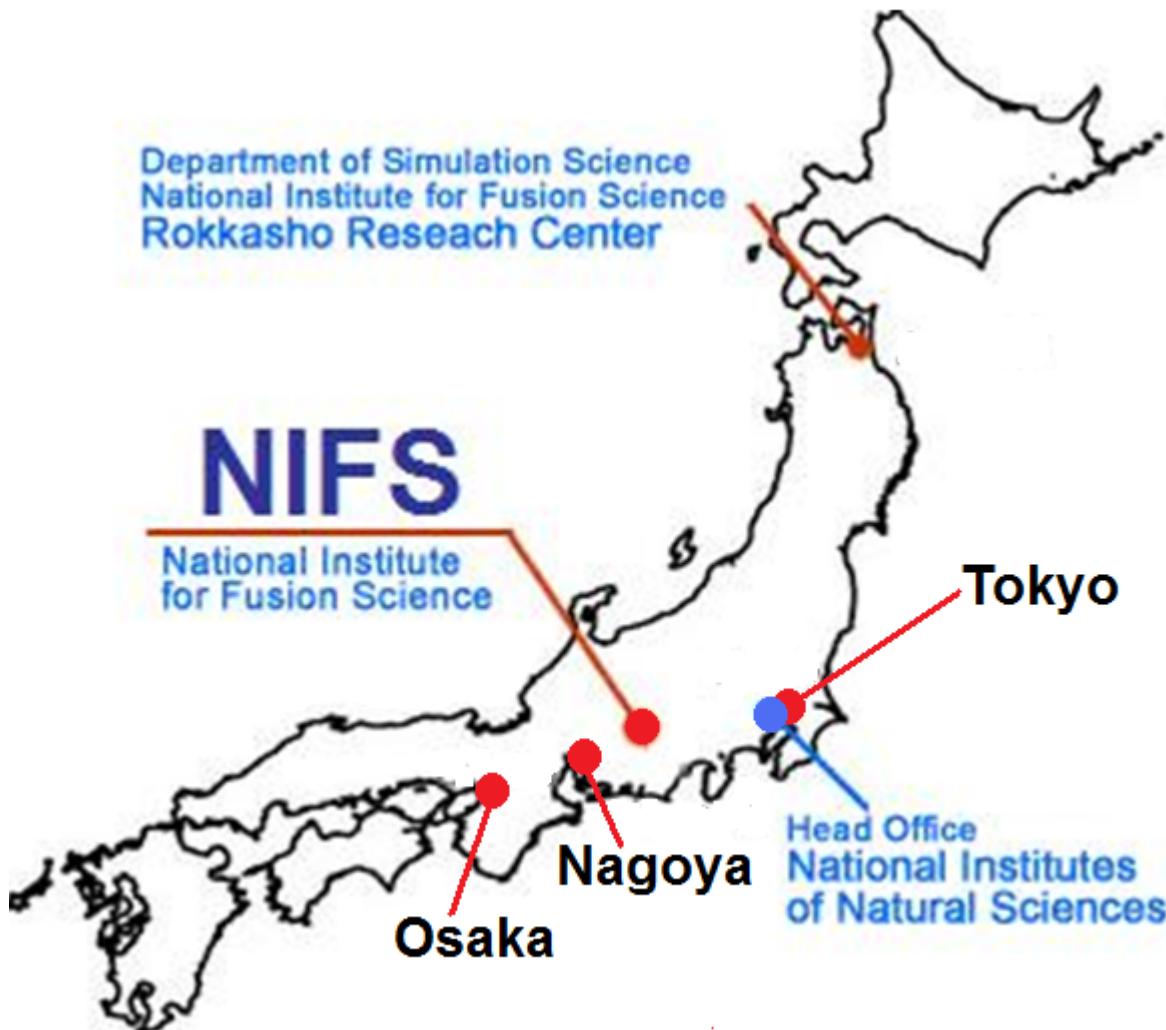
- Control of Edge Localized Modes (ELMs)
- Control of Neoclassical Tearing Modes (NTMs)
- Control of Resistive Wall Modes (RWMs)
- Control of Sawtooth
- Disruption Avoidance and Mitigation
- Helical Systems
- Reversed Field Pinches (RFPs)

Conference Website: [http://  
dg1.nifs.ac.jp/itpa2012/](http://dg1.nifs.ac.jp/itpa2012/)

## Important dates:

- VISA application: as soon as possible (not later than 24, Dec., 2011)
- **Deadline for additional form for non-US citizens: 24 Dec., 2011**
- Deadline for registration: 5 Feb., 2012
- Deadline for hotel reservation: to be announced soon
- Meeting: 5 – 9 Mar., 2012

# Date and Place



**Date:**  
**Mar.5 (Mon) - 9 (Fri),  
2012.**

**Place:**  
**National Institute for  
Fusion Science (NIFS)  
Toki, Japan**