

PREFACE

SIXTH INTERNATIONAL CONFERENCE ON OPEN MAGNETIC SYSTEMS FOR PLASMA CONFINEMENT

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The Sixth International Conference on Open Magnetic Systems for Plasma Confinement (OS2006) was held at the Epochal Tsukuba International Congress Center in Tsukuba Science City, Japan, from July 17 to 21, 2006. The OS2006 was organized by Plasma Research Center, University of Tsukuba, and supported by The Japan Society of Plasma Science and Fusion Research. Following the welcome address by Prof. Y. Iwasaki, President of the University of Tsukuba, scientific presentations including 55 oral and 75 poster papers were carried out. The presentations were selected by the International Program Committee, and the paper selections for publication in *Transactions of Fusion Science and Technology* were decided by the International Program Committee along with the OS2006 publication chair, Dr. H. Hojo.

The topics discussed at the OS2006 covered a wide range of physics issues. In particular, fusion-plasma confinement physics in relation to turbulence suppression due to electrostatic potentials and radially sheared electric fields, neutron sources, magnetohydrodynamic stabilization, plasma diagnostics, and atomic process research in collaboration with the International Atomic Energy Agency were highlighted with steady progress in the fields of plasma heating, transport physics, a direct converter, alternative open-field devices, and various applications as well as fundamental plasma physics.

The details of the significant progress in these fields are reported in the papers included in this transactions, and hopefully further steady progress will be reported at the next conference (OS2008) to be held in Korea.

Finally, the members of the Organization Committee are grateful to the American Nuclear Society for its cooperation in the publication of these papers, in particular, to Dr. Nermin A. Uckan, the Editor of *Fusion Science and Technology*.