

Preface

The joint meeting of the 27th International Toki Conference on Plasma and Fusion Research & the 13th Asia Pacific Plasma Theory Conference was held in Toki through 19 to 22 November 2018, organized by the National Institute for Fusion Science. The International Toki Conference (ITC) is a topical meeting dedicated to a specific subject related to plasma and fusion science. The series began in 1989 with the founding of the National Institute for Fusion Science and has been held on an annual basis ever since. The Asia Pacific Plasma Theory Conference (APPTC) is a meeting to cover broader topics in plasma sciences including theory and simulations for magnetic fusion plasmas, space plasmas, laser-plasma interactions, low-temperature plasmas, and basic plasma phenomena. The series began in 1996 and has provided a forum for the exposition and exchange of the latest researches and developments in plasma science in the Asia-Pacific region. In this era, cooperation among experiments, theory and simulations has become more important. Technological development, built on fundamental research topics, will be further applied to applied plasma research and large-scale plasma science such as research regarding the fusion reactor. With this background, the joint conference of the 27th ITC and the 13th APPTC was held for the purpose of exploring new aspects and to promote the cross-fertilization of diverse fields of science through advances in basic plasma and fusion science. The topics selected for the conference were as follows:

Magnetically-Confined Plasmas
Inertially-Confined Plasmas
Fusion Engineering and Reactor Design
Basic Plasma Research and Plasma Application
Imaging Science and Simulation Technique
Space and Astrophysical Plasmas

This special issue of Plasma and Fusion Research (PFR) contains 71 regular articles and one overview article which were presented at the conference. These papers have been accepted for publication after being peer-reviewed through the processes administrated by the editors listed below:

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Yasushi Ono
Guest Editor-in-Chief
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