Dr. Fabien Widmer was appointed as an IRCC-AFP fellow in the collaboration with the Max Planck Institute for Plasma Physics. He will start the job on September 1st, 2021.

更新日：2021年7月 1日更新

International Specially Appointed Research Employee (Ph.D.): Fabien Widmer

Supervisor 1: Associate Professor Mami Machida (National Astronomical Observatory of Japan)

Supervisor 2: Dr. Emanuele Poli (Max Planck Institute for Plasma Physics)

Main research location: Max Planck Institute for Plasma Physics (Garching, Germany)

It is known that strong interactions exist in astrophysical plasmas and fusion plasmas among turbulence, magnetic reconnection phenomena and dynamics of magnetic island formation. It is because the non-linear interactions and exchanges of energy take place between the microscopic turbulent processes and the large-scale structural formation of the magnetic islands. We will use the 5D gyrokinetic framework, a reduced kinetic model, which is the most advanced theory of micro-turbulence in magnetic fusion plasmas, for studying important physics problems in these phenomena such as 1) the analysis of the dynamic processes triggering the magnetic reconnection phenomena, 2) the interactions between the turbulent processes and magnetic island formation. More Details [PDFファイル／36KB]