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## Commentary

- Progress of Theory and Simulation Research on High-Beta Self-Organized Plasmas  
..... TAKAHASHI Toshiki, KANKI Takashi and MIZUGUCHI Naoki 409

## Special Topic Article

- Electromagnetic Compatibility in Magnetic Confinement Fusion Facilities and its Safety Guideline
1. Introduction ..... TANAKA Masahiro 418
  2. Health Effects of Electromagnetic Fields on Humans ..... HIRATA Akimasa and FUJIWARA Osamu 420
  3. Trends of International Guidelines for Limiting Exposure to Electric and Magnetic Fields to Protect Humans  
..... OHKUBO Chiyoji 425
  4. Measurement and Visualization of EMF Distributions ..... SATO Ken and KAMIMURA Yoshitsugu 432
  5. Electromagnetic Compatibility and Interference in Magnetic Confinement Fusion Experimental Facilities
    - 5.1. Electromagnetic Compatibility and Safety Consideration in Magnetic Confinement Fusion Facilities  
..... UDA Tatsuhiko and WANG Jianqing 437
    - 5.2. Interaction of Electromagnetic Field and Electronic Equipments
      - 5.2.1 The Case of Implanted Pacemaker ..... WANG Jianqing 444
      - 5.2.2 The Case of Semiconductor-Type Dosimeters Using in Radiation Control Facilities  
..... DEJI Shizuhiko and NISHIZAWA Kunihide 448
  6. Postface ..... UDA Tatsuhiko 453
- PFR Abstracts ..... 456
- Information ..... 460
- Plasma & Fusion Calendar ..... 464

## Cover

In an ECR plasma generated by a microwave at 2.45 GHz (1 kW) in the simple toroidal field in the LATE device, an electron pressure profile stretched uniformly along the ECR layer is formed, which reflects that the vertical charge separation current due to the field gradient and curvature of  $B_t$  is proportional to local plasma pressure. Replacement of the electron current to the ion current takes place by the electrostatic potential developed near the top wall, ensuring current circulation through the vessel. (Kengoh KURODA *et al.*, Plasma and Fusion Research Vol. 7, 1302098 (2012) <http://www.jspf.or.jp/PFR/>)



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