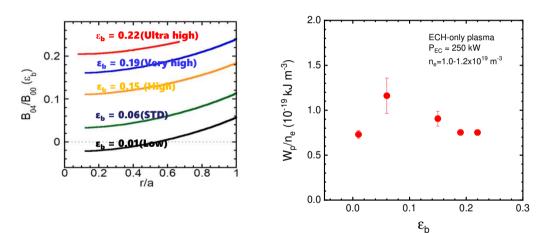


ID: 740 K. Nagasaki (Kyoto Univ. Japan) Effect of Magnetic Configuration on Energy Confinement and Energetic-Particle-Driven MHD Modes in Heliotron J



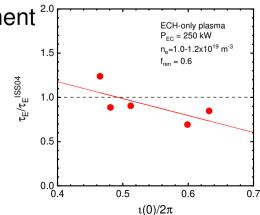
Effect of bumpiness

 The stored energy is maximal in the medium-bumpiness configuration in which neoclassical transport is reduced



Effect of rotational transform

• The energy confinement ² is degraded as the rotational transform increases, which contradicts the ISS04 scaling $(1/2\pi)^{0.41}$



Energetic-Particle-Driven MHD Modes

- The n/m=1/2 EPM & n/m=2/4 GAE are successfully reproduced by MEGA code
- Some EP-driven MHD modes are mitigated with ECH, and some modes are not.

