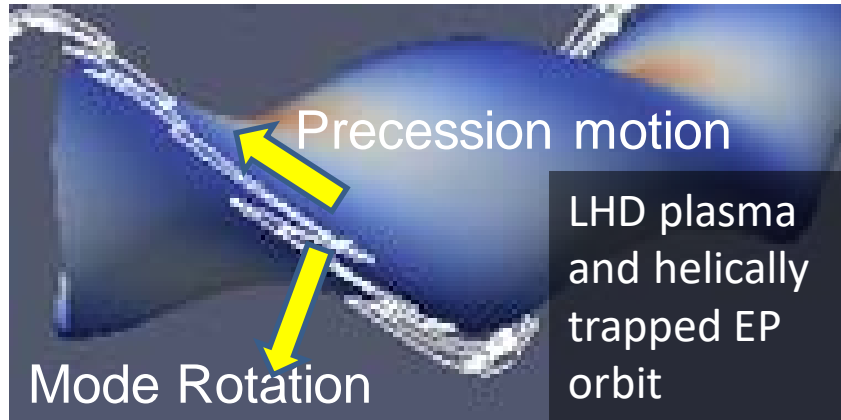
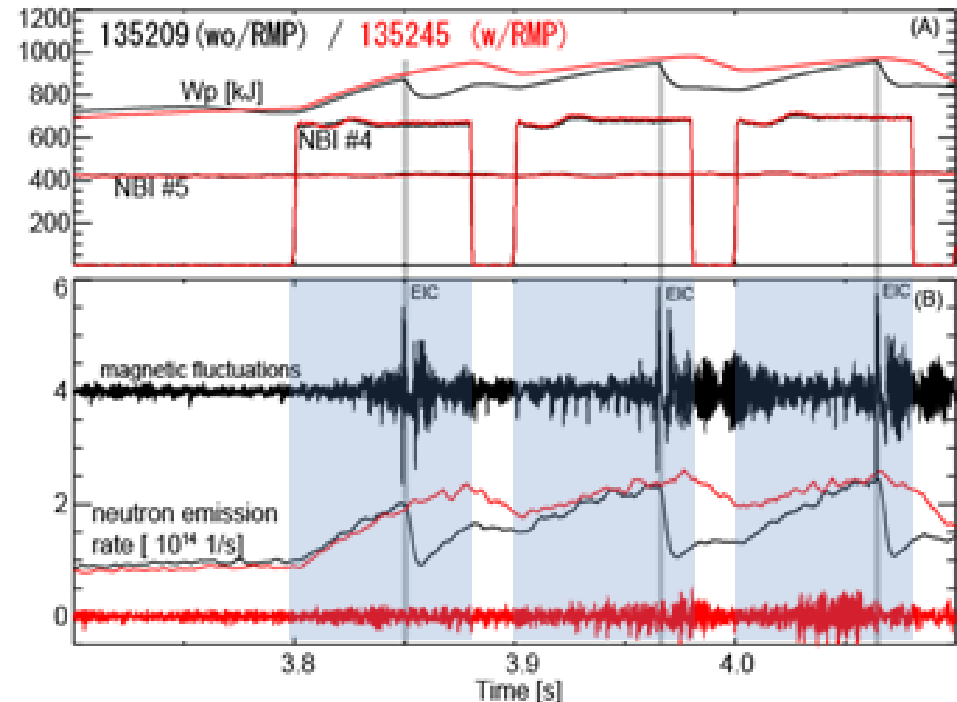


EXCITATION MECHANISM OF THE ENERGETIC PARTICLE DRIVEN RESISTIVE INTERCHANGE MODE AND STRATEGY TO CONTROL THE MODE IN LARGE HELICAL DEVICE

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- Helically trapped energetic-particle (EP) driven resistive interchange mode (EIC) is destabilized when the precession motion of the helically trapped EP resonates with the pressure driven interchange mode.
- A velocity modulation caused by the toroidicity of the magnetic field produces this resonance.



• Control/suppress of the EIC mode is performed based on the resonance mechanism.

- ECW heating and **RMP application** are found to be quite effective to suppress the EIC without reducing the EP pressure.