

Edge Resonant Fast-Ion Transport Induced by RMPs Depends on Plasma Response and Poloidal Spectrum of Applied 3D Fields



Joint experiments at AUG and DIII-D show that fast-ions are extremely sensitive to the plasma response to externally applied 3D fields and their poloidal spectrum

- Most fast-ion losses are on trapped orbits that resonate with the applied 3D fields
- Calculation of fast-ion δP_ϕ due to 3D fields shows resonant transport layer is localized within 5-10 cm around separatrix

