SIMULATIONS ON THE PARTICLE AND HEAT FLUXES FOR THE RF HEATING H-MODE ON EAST

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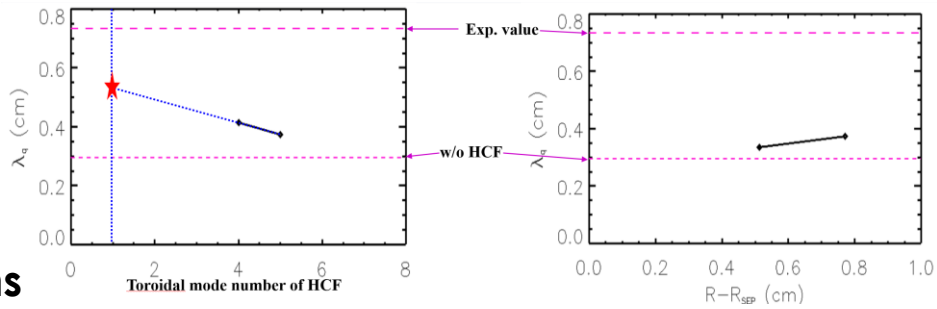
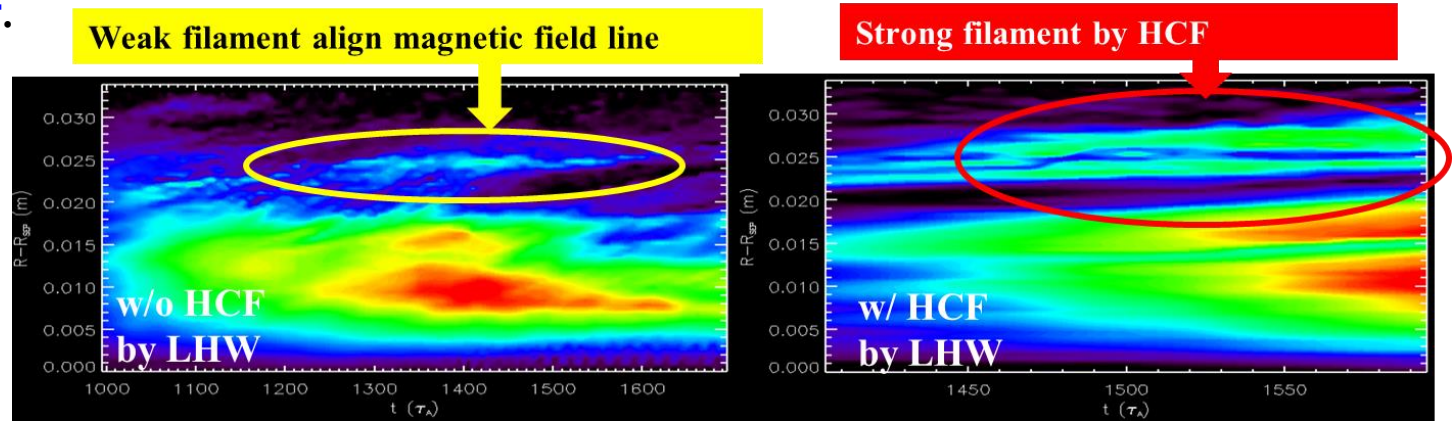
- The Eich's scaling is well reproduced by BOUT++ code [1,2].
- SOL width on EAST is 2x larger than Eich's scaling [3], due to the topology change effects of helical current filament (HCF) driven by LHW[4].
- The modeled HCF with the same amplitude as exp. Is added in BOUT++ simulation
- The simualltions show that the higher n of HCF leads to the smaller broadening of λ_q.
- The closer HCF leads to the narrower λ_q.
- The nonlinear wave-wave interactions change the phase coherent time [5].



- The HCF can broaden the simulated SOL width, and reproduce the separation of strike point.



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