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## **Gyrokinetic Simulation of Microturbulence in EAST Tokamak and DIII-D Tokamak**

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The new capabilities in the gyrokinetic simulation code GTC enable it to simulate the turbulent transport in real tokamak experiments. We apply these capabilities to simulate one ITG turbulence case for DIII-D tokamak and one TEM turbulence case for EAST tokamak with real experimental profiles and equilibrium magnetic field. For DIII-D case, the radial heat diffusivity profile simulated by GTC is highly consistent with that by GYRO. For the EAST case, we find that the collisional effect is very important in successfully explaining the low mode frequency and large wavelength for the electron coherent mode (ECM) observed in the EAST pedestal.

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China

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