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## **TH/P7-06: Electrostatic Gyrokinetic Absolute Equilibria: Calculation, Simulation and Physics Relevant to Fusion Plasmas Turbulence**

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Nonlinear gyrokinetic equations play a fundamental role in our understanding of fusion plasma turbulence and associated transport. Gyrokinetics can be Galerkin truncated to have the absolute statistical equilibrium solution to which the truncated system should ultimately relax and be used to study the turbulence and the relevant transports. Here, we systematically review several versions of gyrokinetic absolute equilibria (GKAE) discovered at recent subsequent stages of research, together with the comprehensive numerical results and realistic physical discussions.

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