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**Extension of GTC Capability for Simulating Non-Axisymmetric Systems**[1] IHOR HOLOD, Univ of California - Irvine, DONALD SPONG, Oak Ridge National Laboratory — Effects of magnetic field non-axisymmetry are important for all magnetic confinement systems, including tokamaks, stellarators, and reversed field pinches. In this work we present recent upgrade of GTC global gyrokinetic model to use general 3D toroidal equilibria and to study the associated phenomena. We have initially applied new capability to simulate electrostatic ITG, and fast ion driven electromagnetic TAE modes in the LHD stellarator.

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