

Abstract Submitted
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Status of new RF heating and current drive capabilities in TRANSP¹ K. INDIRESHKUMAR, D. MCCUNE, Princeton Plasma Physics Lab, JOHN WRIGHT, MIT-PSFC, ROBERT HARVEY, ALEXANDER SMIRNOV, COMPX — This poster describes our recent efforts to incorporate new RF heating and current drive capabilities into the tokamak transport code TRANSP. Efforts are underway on two fronts: (1) incorporate new RF heating/current drive modules and (2) improve the performance of existing RF codes by utilizing the parallel processing capabilities of the codes. On the first front, we have made progress by incorporating the generalized ray tracing code GENRAY into TRANSP and making it available for ECRH calculations. We are also making progress on incorporating the bounce averaged Fokker-Planck code CQL3D into TRANSP. On the second front, we have demonstrated significant speedup of a TORIC calculation when the new 2D parallelized TORIC is used on the PPPL Kruskal cluster. We are currently carrying out a demonstration of the speedup of a complete TRANSP run with parallelized toric.

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