

Abstract Submitted  
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**Status of TRANSP and PTRANSF**<sup>1</sup> DOUGLAS MCCUNE, ROBERT ANDRE, ELIOT FEIBUSH, MARINA GORELENKOVA, K. INDIRESHKUMAR, CHRISTIANE LUDESCHER-FURTH, LEW RANDERSON, PPPL, GLENN BATEMAN, ARNOLD KRITZ, Lehigh University — This poster describes the status of TRANSP and PTRANSF code development and run production operations. Production rates continue to climb as new users and tokamaks are added; statistics will be shown, including utilization of the recently added TRANSP MPI capability. New code features include greatly expanded flexibility in specification of transport models for density, temperature, and angular momentum profile prediction in PTRANSF runs. A new replay option enables retrieval of sources from TRANSP analysis runs for PTRANSF validation. TRANSP / PTRANSF free boundary MHD modeling options have been enhanced. New RF modeling capabilities, such as the ability to model ICRF with full toroidal mode spectrum, have been added. NUBEAM upgrades include improvements to deposition atomic physics and loss orbit distribution capture. Fusion Grid post-processing of TRANSP results has been improved using extraction of SWIM-SciDAC Plasma State files from TRANSP archives. Opportunities for PTRANSF support of SciDAC and FSP efforts will be presented.

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