TRANSP and PTRANSP at PPPL: Status and Plans. DOUGLAS MCCUNE, ROB ANDRE, ELIOT FEIBUSH, K. INDIRESHKUMAR, PPPL, JAE-MIN KWON, NFRC, Korea, CHRISTIANE LUDESCHER-FURTH, LEW RANDERSON, PPPL — The PPPL TRANSP code suite is a set of tools for time dependent simulation of tokamak plasmas. The entire system consists of over a million lines of fortran-77, fortran-90, C, and C++ code. Although pieces are over 30 years old, the code has been continually upgraded and modernized, now representing over 60 man-years of labor invested. TRANSP now runs as a service on the Fusion Grid, supporting plasma physics research groups around the world. In this poster, status and plans for TRANSP and associated predictive modeling upgrades (PTRANSP) are summarized. Fusion Grid production system results will be shown. Upgrades to physics models (MHD equilibrium reconstruction, ICRF wave interaction with beam injected fast ions, predictive transport), algorithms (MPI-parallelized source models), and client software (web-browser accessible interactive visualization of run results) will be summarized. The relationship of TRANSP/PTRANSP development efforts to SciDAC and FSP will be discussed. Related posters are cross-referenced.

Douglas McCune
PPPL

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