

Abstract Submitted
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TRANSP: status and planning¹ R ANDRE, Retired, J CARLSSON, M GORELENKOVA, S JARDIN, S KAYE, F POLI, X YUAN, PPPL — TRANSP is an integrated interpretive and predictive transport analysis tool that incorporates state of the art heating/current drive sources and transport models. The treatments and transport solvers are becoming increasingly sophisticated and comprehensive. For instance, the ISOLVER component provides a free boundary equilibrium solution, while the PT- SOLVER transport solver is especially suited for stiff transport models such as TGLF. TRANSP incorporates high fidelity heating and current drive source models, such as NUBEAM for neutral beam injection, the beam tracing code TORBEAM for EC, TORIC for ICRF, the ray tracing TORAY and GENRAY for EC. The implementation of selected components makes efficient use of MPI for speed up of code calculations. Recently the GENRAY-CQL3D solver for modeling of LH heating and current drive has been implemented and currently being extended to multiple antennas, to allow modeling of EAST discharges. Also, GENRAY+CQL3D is being extended to the use of EC/EBW and of HHFW for NSTX-U. This poster will describe present uses of the code worldwide, as well as plans for upgrading the physics modules and code framework.

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