

Abstract Submitted
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Progress and plans for the PTRANSP project¹ STEPHEN JARDIN, LONG-POE KU, CHARLES KESSEL, DOUG MCCUNE, PPPL, HOLGER ST. JOHN, General Atomics, LINDA LODESTRO, LLNL, GLEN BATEMAN, ARNOLD KRITZ, LeHigh U, PTRANSP TEAM — We describe progress on a two-year multi-institutional project to perform a significant upgrade of the TRANSP code by implementing several new predictive capabilities. The product will be an integrated predictive transport code that is fully coupled to the UEDGE edge transport code and to a number of existing MHD equilibrium and stability codes and transport models. This capability will be of immediate benefit to the U.S. ITER physics team by providing a unique advanced ITER discharge simulation capability. It will also provide opportunities for collaboration and code sharing with our international partners. Progress to date has been made in the areas of extracting utilities from the TRANSP code that can be accessed by an external driver. The utility XPLASMA is being used to represent the plasma state. The solver routine has been hardened so that it can use extremely stiff transport models such as GLF23 without relaxation or other smoothing techniques. Examples of these are presented.

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