Abstract Submitted for the DPP98 Meeting of The American Physical Society

Sorting Category: 5.7 (theoretical)

Interactive Transport Methods In ONETWO¹ H.E. ST.

JOHN, General Atomics, T.B. YANG, R. COHEN, Lawrence Livermore National Laboratory — A programable front end to the ONETWO transport code using the Python scripting language has been created. We demonstrate how it is possible, without changing the transport code itself, to construct interface routines that give us access to all steerable parameters. An example of the advantage of steerable computations is presented in the form of a Python script designed to allow experimentation with numerical solution methods for problematic confinement models. Public domain and in-house developed methods are combined in a complementary manner to generate interfaces to entire libraries of routines automatically. The design of the GUI interface and its interaction with the scripting facility is presented. Examples of the combination of object oriented numerical methods with existing Fortran based code are discussed.

 $^1\mathrm{Work}$ supported by U.S. DOE Contracts DE-AC03-89ER51114 and W-7405-ENG-48.

X	Prefer Oral Session Prefer Poster Session	stjohn@gav.gat.com General Atomics
Special instructions: DIII-D Poster Session II (divertor physics, disruptions, RF, & diagnostics),		
immediately following Schachter		

Date submitted: July 21, 1998 Electronic form version 1.3