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Comparison of Anomalous Transport Models C.M. WOLFE, A.H. KRITZ, G. BATEMAN, J.E. KINSEY, A.Y. PANKIN, Lehigh University, G.M. STAEBLER, General Atomics — It has been found that simulation results obtained using different transport models agree with experimental data about equally well, but they do not agree when predicting the performance of ITER [1]. To aid in understanding these differences, a comparison is made between transport models such as the widely used MMM95 and GLF23 models. A driver program was written to accept standardized inputs for transport models (e.g., ion and electron densities and temperatures, normalized temperature and density gradients, magnetic $q-$value, magnetic shear s, and effective charge Z) and to compute transport coefficients. The driver program is used to carry out comparative scans over the ion and electron temperature gradient as well as scans over dimensionless parameters including q, s, r/R, β, collision frequency, and T_i/T_e. Different channels of transport, such as ion thermal, electron thermal, and particle transport, are considered in the comparison between the models, and qualitative features of these comparative scans will be discussed. To facilitate using the GLF23 model, a new GLF23 interface routine was written to ensure that the evaluation of the model is strictly local to each flux surface and does not make use of information from adjacent flux surfaces.
[1] J. Kinsey et al., Nucl. Fusion **43**, 1845 (2003).

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