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Modeling of Neutral Transport In the SOL of Tokamak Plasmas[1] B.R. GOLDSMITH, UCSD, W.P. WEST, T.E. EVANS, General Atomics — Plasma refueling and sputtering of impurities from the main wall are problems which depend upon the transport of neutral particles in the scrape-off-layer of a tokamak. We have developed a 1D model of SOL neutral transport which can quickly predict the core fueling fraction and the energy distribution of the neutral flux incident on the wall. Detailed atomic physics of neutral interaction with background plasma including multiply charged impurities will be included. We will compare our calculated profiles with measured Dα emission data.

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