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Non-LTE coronal Au plasma simulation in the configuration average approximation[1] JIANKUI YUAN, GREGORY MOSES, University of Wisconsin-Madison — We present the non-LTE calculation for a highly ionized Au plasma using our YAC atomic physics code. We compare our results with experiments recently conducted at the Livermore electron beam ion trap EBIT-II. The configuration average model explicitly includes all possible open M-shell configurations from a given configuration group. The collisional and radiative rates connecting the included configurations are calculated in the configuration average approximation for population kinetics. Parallel iterative solvers in the PETSc software library are used for the solution of the rate equations. Performance of the parallel iterative solver will also be discussed.

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