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Low Density Plasma Regimes in SST-1 with and without Supra-Thermal Electrons

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Runaway dominated low density discharges are modeled for SST-1 using the model as proposed by I El Chamaa Neto et al. [2] for before Plasma Facing component installation and after Plasma Facing component installation. For both the cases modeled results are compared with the measured data. It is found that the runaway generation takes place in the outer region of the Plasma column and the effect of runaway generation is visible in the loop voltage signal, Plasma current, H-alpha, Bolometer and Hard X-ray in the form of spikes. For both the cases Plasma resistivity and electron temperature estimated using loop voltage spikes.

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