

Central Electron Temperature estimation (Spitzer Formula)

The time evolution of the central electron temperature $T_e(0, t)$ is calculated from equation based on Spitzer's resistivity formula (see eg. [?],[?]):

$$T_e(0, t) = \left(\frac{R_0}{a^2} \frac{8Z_{eff.}}{1544} \frac{1}{R_p(t)} \right)^{2/3}, [eV; m, \Omega]$$

For particular case of the GOLEM tokamak it says:

$$T_e(0, t) = 0.9 \cdot \left(\frac{I_p(t)}{U_I(t)} \right)^{2/3}, [eV; A, V]$$