

From measured signals to the safety factor $q(a)$ @tG

Plasma current
 $I_p(t)$ from Rogowski

Toroidal field
 B_t from TF coils

GOLEM geometry (constant)
 R_0, a

Quasi-stationary interval
and mean current
 $\bar{I}_p = \langle I_p \rangle$

Safety factor at the edge:

$$q(a) = \frac{2\pi a^2 B_t}{\mu_0 R_0 \bar{I}_p}$$