Maximization of ICRF Power by SOL Density Tailoring with Local Gas Injection. EX/P5-39

- Proximity between antenna and outer midplane (OMP) gas injection maximises the effect of local gas injection on ICRF antenna coupling resistance (JET, AUG, DIII-D).
- Top injection leads to a lower coupling improvement, toroidally uniform.
- To assess efficiency of local gas injection on ITER ICRF antenna coupling, need to take into account the field lines topology and use 3D SOL modelling codes.

![Graphs showing antenna-gas inlet distance effect on coupling resistance](image)

(a) AUG Antennas

(b) JET Antennas A and B