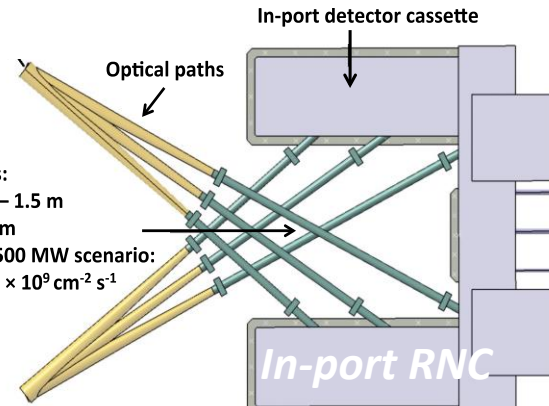
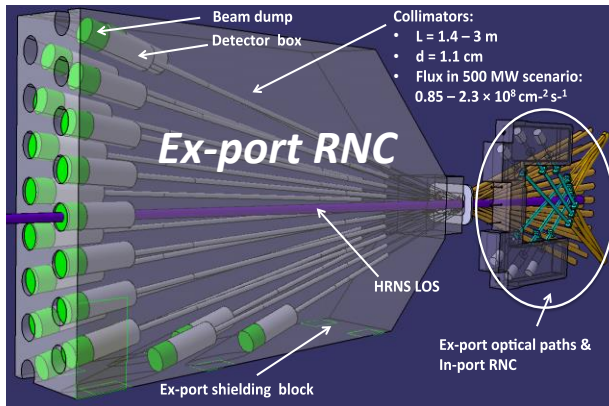


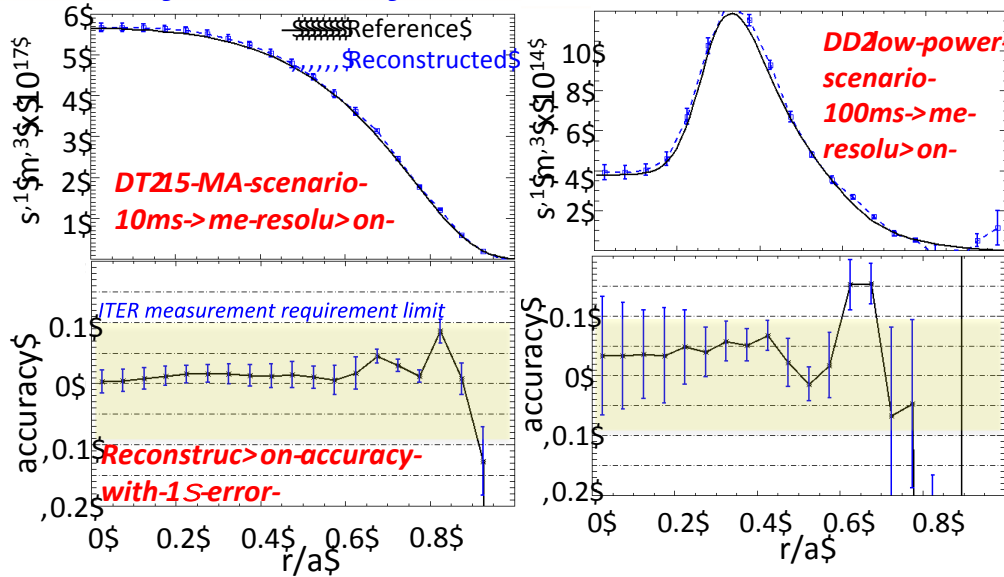
# System Level Design and Performances of the ITER Radial Neutron Camera (RNC)

D. Marcocco, B. Esposito, et al.

- RNC architecture identified using system engineering approach:** selection of different RNC options → evaluation of neutron emissivity profile reconstruction accuracy.



## Performance of ISA in DT and DD scenarios



- Outcomes of performance analysis:**
  - In port RNC** lines of sight (LOS) **needed**.
  - Low number of LOS ( $\leq 11$ ) to be avoided**.
  - Measurement requirements matched by ISA** considering statistical and background errors only: 10% accuracy & 10 ms time resolution **except in DD low power** scenarios (100 ms needed).
  - Inclusion of additional sources of error** (e.g. efficiency, solid angle, equilibrium) **needed to assess actual RNC performance**.