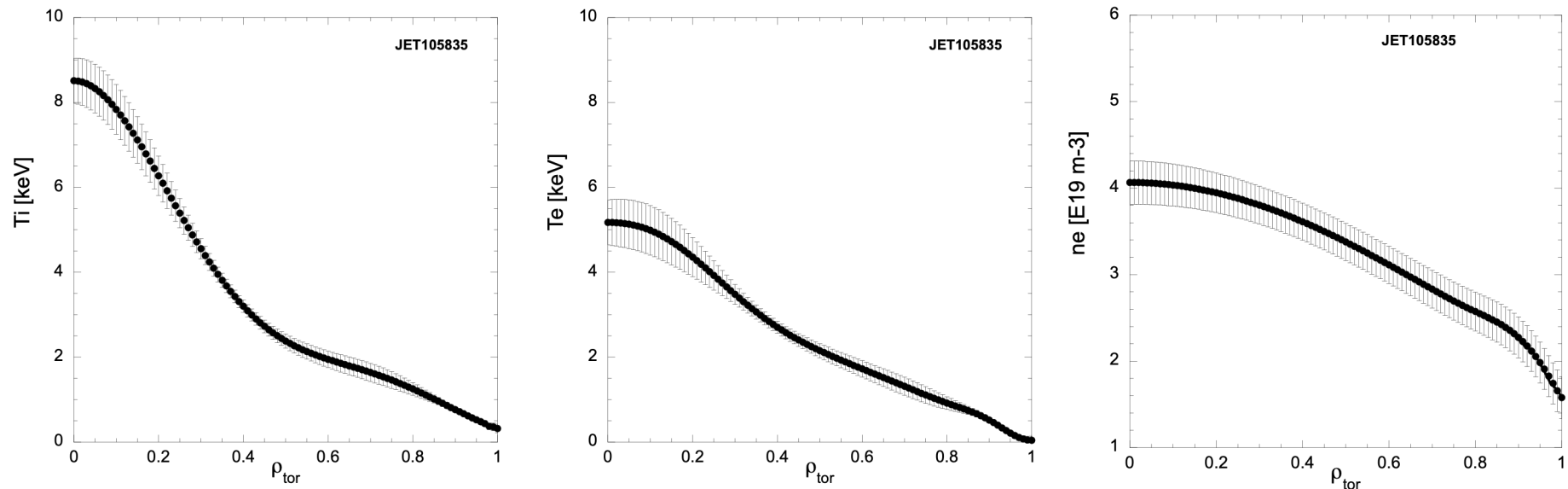


# ASTRA / TGLF-SAT2 simulations of JET #105835

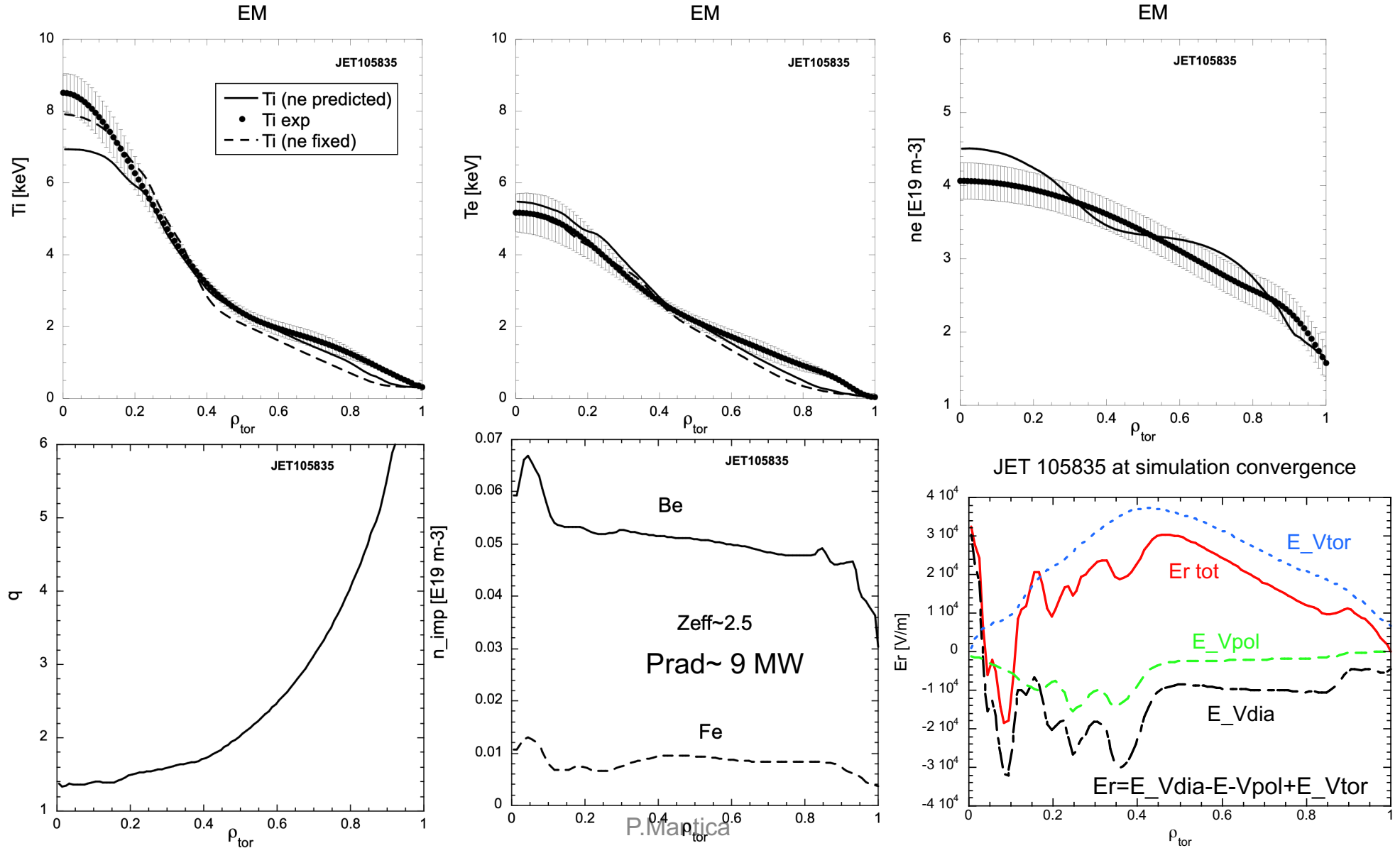
P.Mantica

105835 at t=55.1-55.2 s fits using EX2GK, EFTP equilibrium

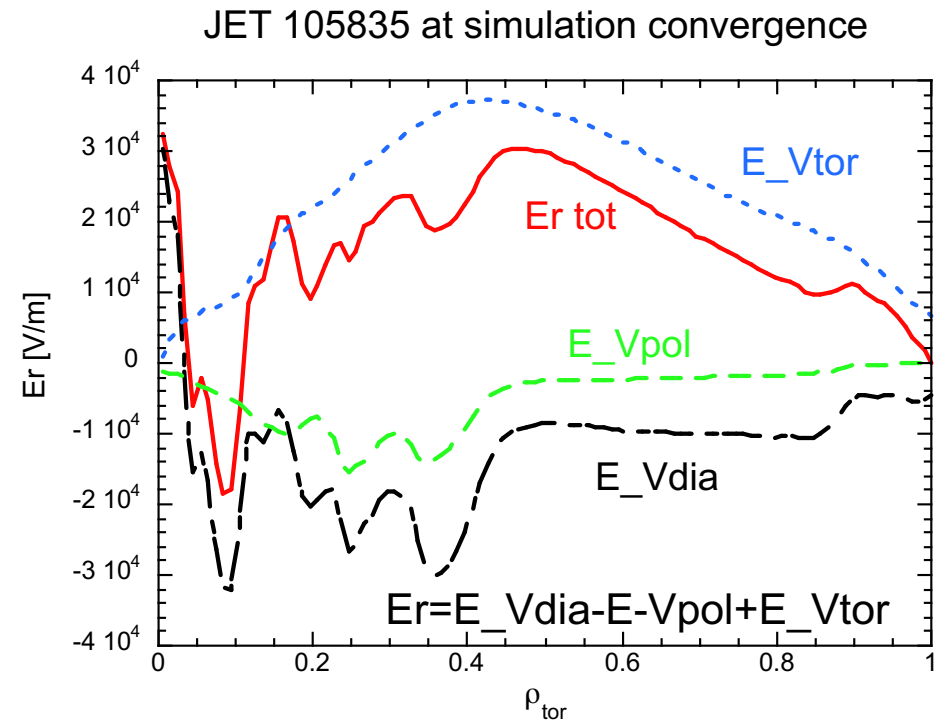
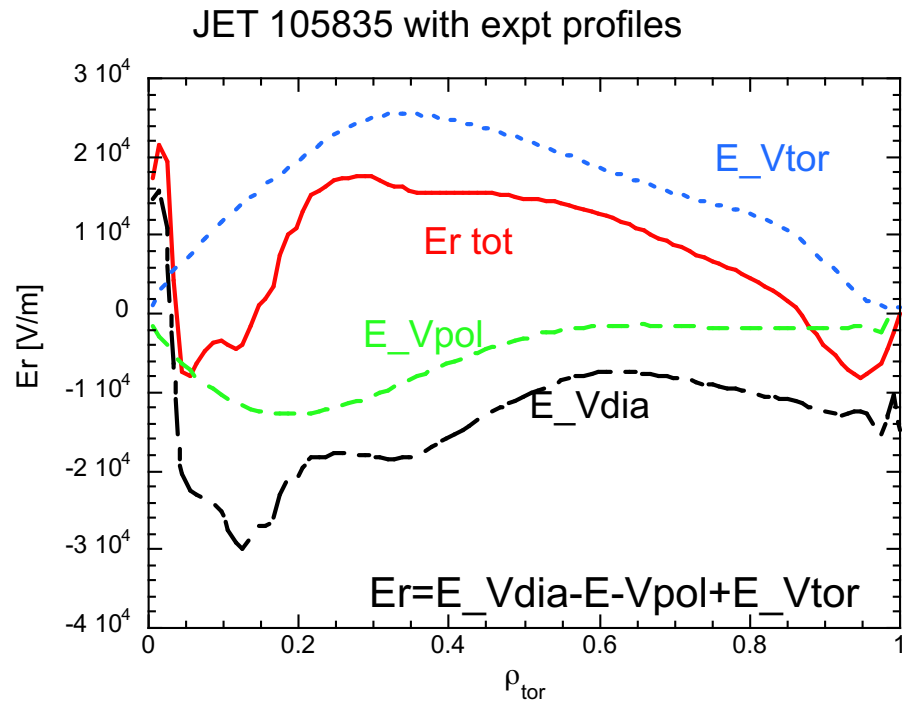


# ASTRA simulations EM with $n_e$ predicted vs fixed

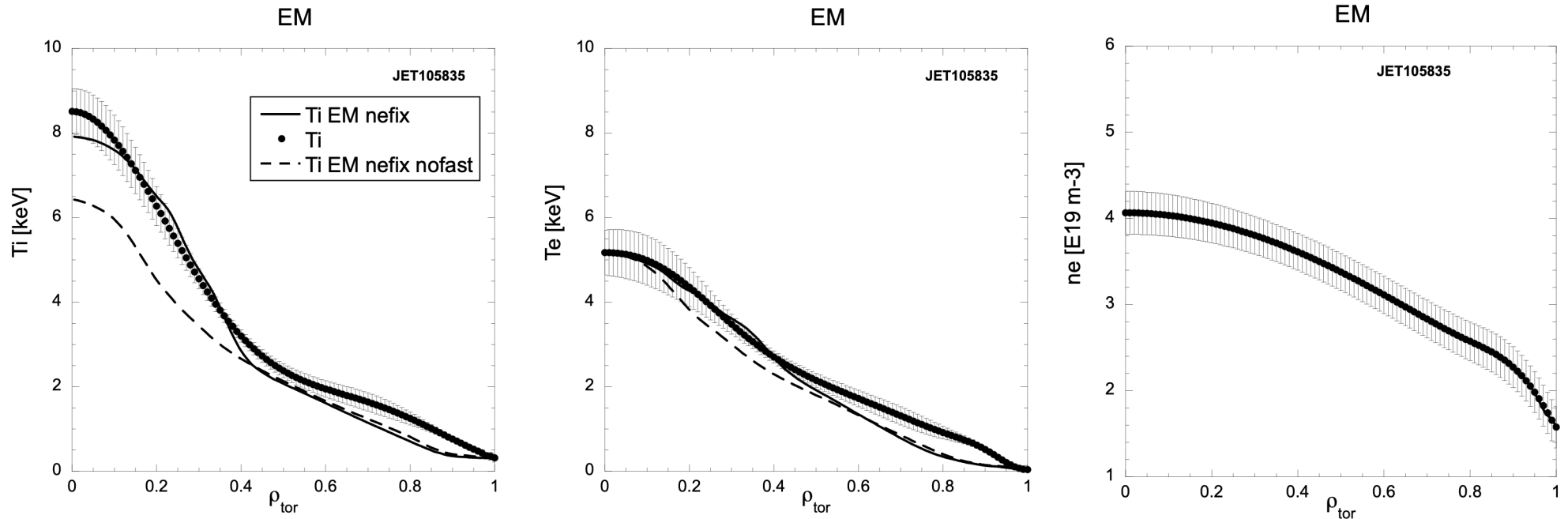
Predicted up to  $\rho=1$  :  $T_e$ ,  $T_i$ ,  $n_e$ ,  $J$ ,  $n_{Be}$ ,  $n_{Fe}$  Fixed from experiment: rotation  
Heating from CHAIN2 PION, CD from NBP2



# Er profiles

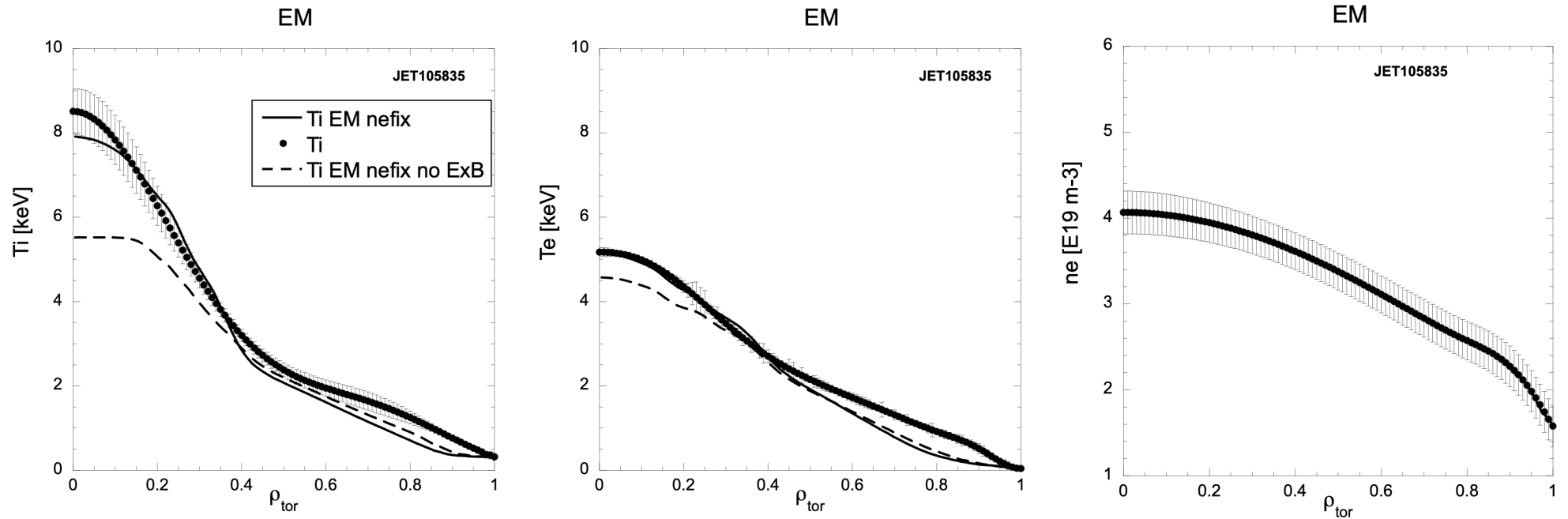


# ASTRA simulations EM with $n_e$ fixed with/without fast ions

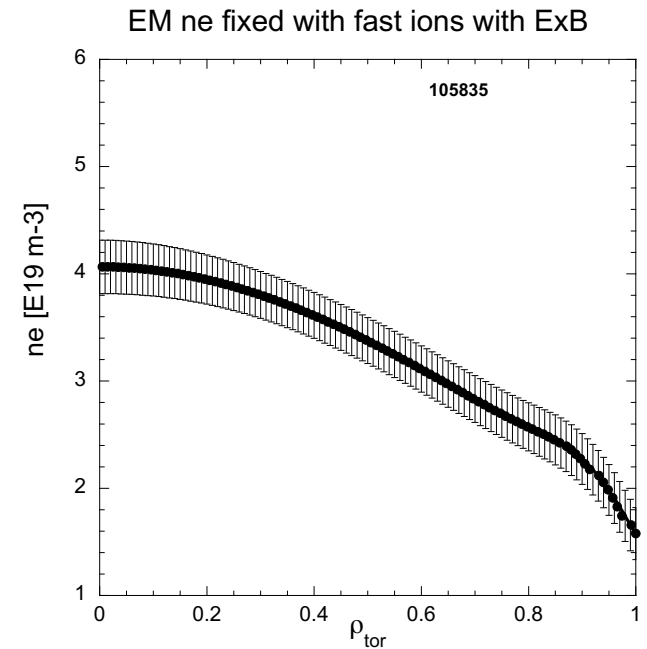
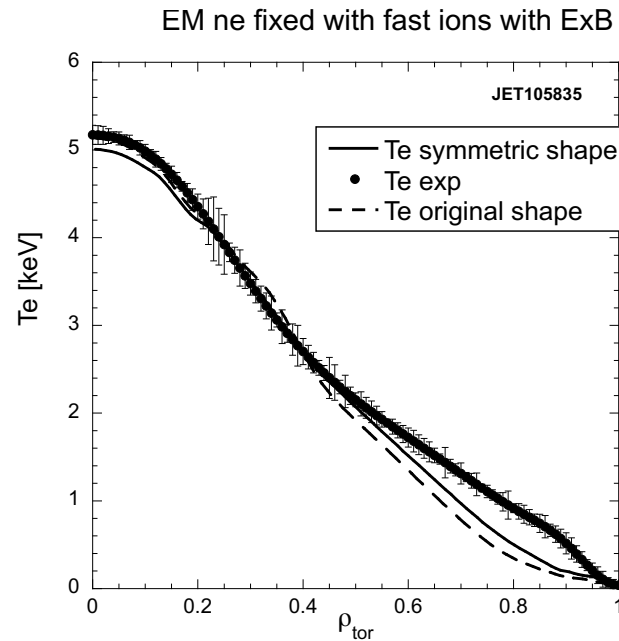
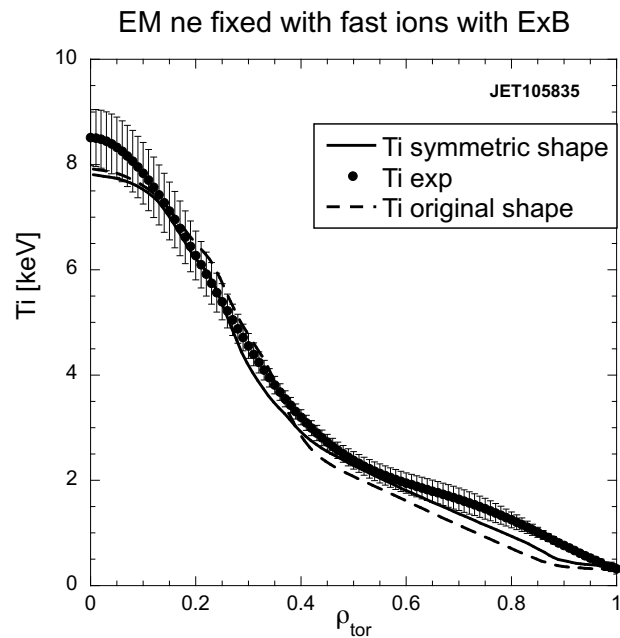
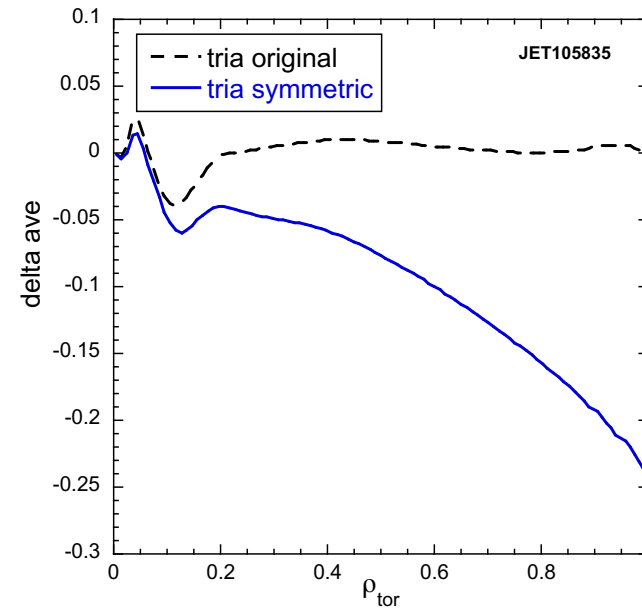
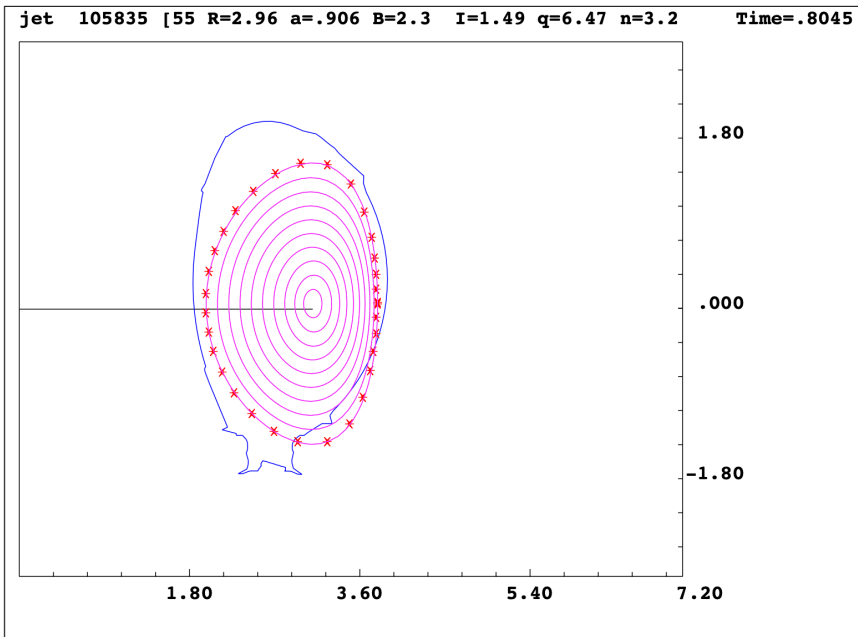


The strong Ti peaking in the core is clearly due to fast ion effects – in the simulation only fast ion dilution and  $\alpha$  stabilization are included

# ASTRA simulations EM with $n_e$ fixed with/without ExB



# ASTRA simulations EM with $n_e$ fixed and up-down symmetric shape



# ASTRA simulations ES with $n_e$ predicted vs fixed

