Role of n_e^{sep} in the pedestal performance in JET-ILW and comparison with JET-C. L. Frassinetti et al. (KTH)

- Negative correlation between p_e^{ped} and n_e^{sep}/n_e^{ped} observed in JET
- The correlation is due to two distinct mechansims:
  1. $n_e^{sep}/n_e^{ped}<0.4$
     - the increase of n_e^{sep}/n_e^{ped} shifts the pressure outwards
     - PB modes are destibilized and p_e^{ped} decreases.
     - The effect saturates at $n_e^{sep}/n_e^{ped}\approx0.4$
  2. $n_e^{sep}/n_e^{ped}>0.4$
     - the increase of n_e^{sep}/n_e^{ped} reduces $\nabla n_e/n_e$
     - increase of turbulent transport
     - The pedestal gradients are reduced
     - Resistive MHD might be neccesary to explain the ELMs
- Extrapolation to ITER are not trivial: ITER will operate on the peeling boundary