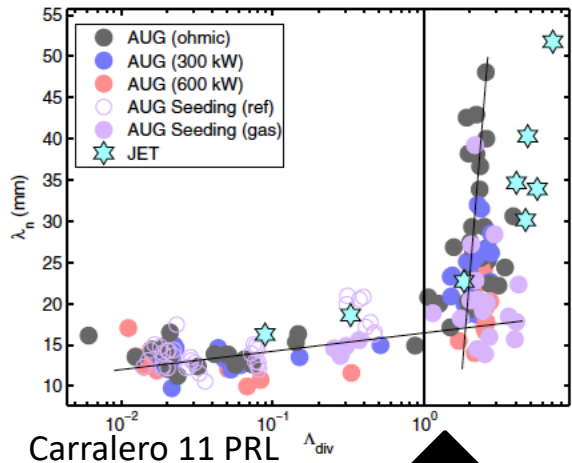


The physics basis for a solution to the power and particle exhaust problem of a next step device



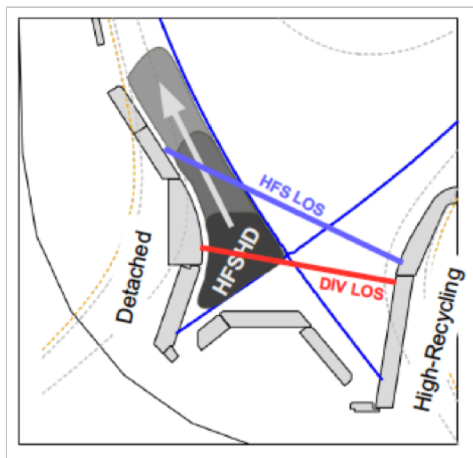
Divertor Detachment Physics

Combining SOL enhanced transport and Drifts allowed...

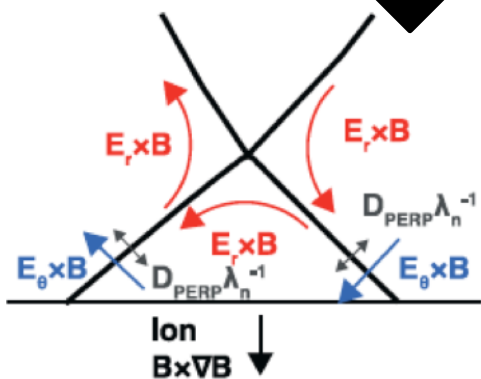


Carralero 11 PRL

...explaining divertor asymmetry and neutral divertor pressure



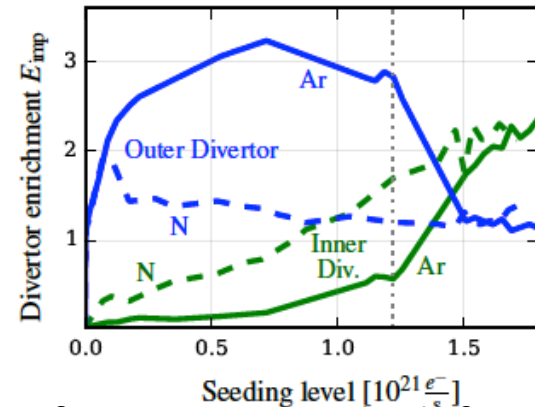
ASDEX Upgrade
Potzel EPS 2015, Reimold
NME 2017



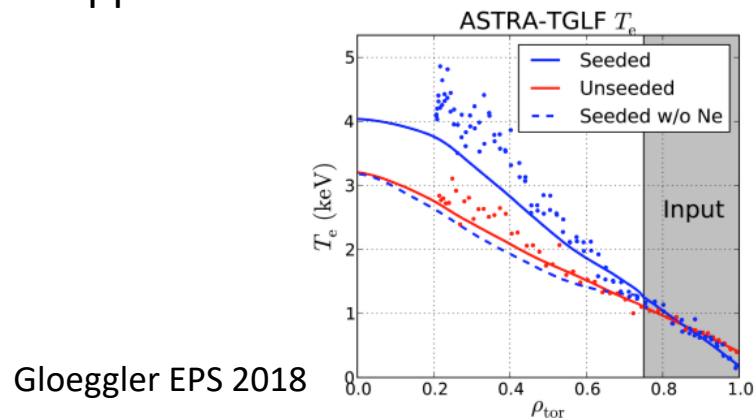
Highly dissipative scenarios

Improving numerically understanding of impurity enrichment

Hitzler EPS 2018



No loss of confinement in JET high f_{rad}
Ne seeding \rightarrow dilution \rightarrow ASTRA-TGLF
 \rightarrow suppression of ITG mode



Gloegler EPS 2018

