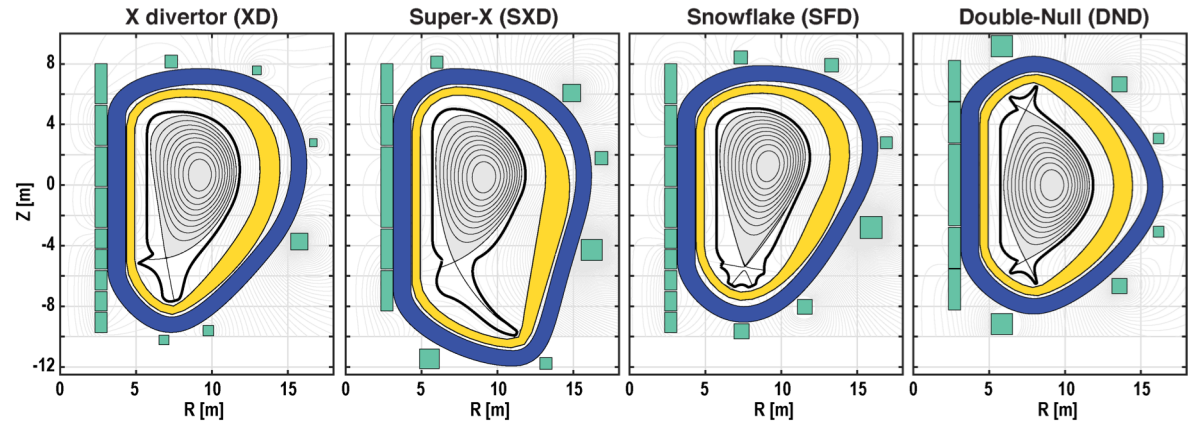


Assessment of Alternative Divertor Configurations as an Exhaust Solution for DEMO



- Engineering constraints and use of readily available technologies (\rightarrow PF coils outside the TF coils) limit geometric modifications of the single-null divertor

- XD and SXD on outer leg only
- XD flux flaring limited by grazing angle of field at target
- SXD without poloidal flux expansion and with limited target radius increase



- Simple divertor models suggest increase of tolerable residual power $(1 - f_{\text{rad,div}})P_{\text{sep}}$ by 10-50%
 - XD & SXD outer target only with XD performance possibly at the expensive of inner target
- Further benefits expected from ability to increase $f_{\text{rad,div}}$