

Summary of main results from ASDEX Upgrade



- Progress in physics understanding core and edge transport is made for improved modelling of future tokamak plasmas
- Complex real-time feedback schemes were developed and routinely used
- Importance of fast particles for turbulent core transport was highlighted
- Different integrated scenarios for naturally ELM-free plasmas were compared.
- The QCE regime is a promising candidate for ITER or DEMO, combining high power, high confinement, high density and a detached divertor. A high power, high confinement discharge without any large ELM was presented
- Plasma parameters close to the separatrix play a key role for the plasma operational space (density limit, L-H transition) and the access to small-ELM regimes
- Studies on AUG will be extended to alternative divertor configurations in 2023. First SOLPS-ITER simulations show promising detachment behavior