

Advances in predictive thermo-mechanical modelling for the JET divertor experimental interpretation, improved protection, and reliable operation



- The corrected optical projection for the parallel heat flux is 40% of that inferred when geometrical and loading corrections are not taken into account
- The engineering footprint averages ELM and inter-ELM contributions leading to 5-10 times broader profiles when compared to the inter-ELM scaling laws
- Modelling improvements have been integrated in predictive analysis tools, with a maximum 15% error in temperatures and energy estimations
- Melting, cracks and tie-rod failures at the divertor tiles can now be reproduced and prevented in the upcoming high power D-T campaign

