ITER energetic particle confinement in the presence of ELM control coils and European TBMs

• Using ASCOT, 3.5 MeV alphas and 1 MeV NBI deuterons were simulated in the 15MA H-mode flat top phase including:
  • a recent 3D-wall,
  • ferromagnetic components with detailed geometry and nonlinear H(B) curves, as well as
  • ELM Control Coils

• No threat to first wall from NBI ions or \( \alpha \)-particles was observed due to:
  • European Helium Cooled Pebble Bed TBMs,
  • ELM Control Coils at 18kAt current
    (field stochasticity limited to outside \( \psi_p = 0.95 \)), or
  • combination of the above perturbations.