

Disruption modelling with M3D-C¹

- High-order finite element code **M3D-C¹** solves 3D nonlinear extended MHD equations over transport time scales [[Jardin Comput. Sci. Discovery 2012](#)]
 - Thick resistive wall model includes eddy & halo currents [[Ferraro Phys. Plasmas 2016](#)]
 - Impurity & pellet models
- Used for 3D nonlinear modelling of hot NSTX VDE [[Pfefferle Phys. Plasmas 2018](#)]
- VDE benchmarks with NIMROD & JOEK
 - Linear: successful, nonlinear: ongoing
- Future work:
 - VDE benchmark with CarMaONL
 - Coupling with CARIDDI (3D model of conducting structures)

