Electron and ion temperature profiles during merging of two FRC plasmas  

Fenton Glass, Tri Alpha Energy, Inc., Deepak Gupta, Sean Dettrick, Bihe Deng, Eusebio Garate, Michel Tuszewski, TAE TEAM — Plasma temperature profiles are measured in the C-2 field reversed configuration (FRC) experiment during the coaxial merging of two FRCs plasmas. Electron temperatures are measured using a nine spatial point Thomson scattering system and ion temperature profiles are estimated from multi-chord ion Doppler spectroscopy. Results are used to refine MHD simulations performed using the LamyRidge code.