

Dr Stuart Muldrew

Dr Stuart Muldrew is a Principal Fusion Technologist at the UK Atomic Energy Authority (UKAEA), specialising in fusion power plant design, modelling and integration. He is the Whole Plant Performance lead for STEP (Spherical Tokamak for Energy Production; a programme to deliver a UK prototype fusion energy plant, targeting 2040, and a path to commercial viability of fusion). In addition to spherical tokamaks, Stuart has worked on alternative fusion power plant concepts, including conventional aspect ratio tokamaks (EUROfusion-DEMO, SST-2), stellarators (HELIA5 5-B) and inertial fusion. His work also includes the socioeconomics of fusion energy.

Prior to joining UKAEA, Stuart obtained an MPhys Physics and Astronomy from Durham University and a PhD from the University of Nottingham. He subsequently held research positions in physics at the University of Nottingham and University of Leicester. Stuart has authored 31 peer-reviewed publications, with 2,287 citations and an h-index of 21. His teaching experience includes lecturing on the Culham Plasma Physics Summer School, Karlsruhe Institute of Technology International School on Fusion Technologies, University of Oxford Materials Application Fusion CDT and Imperial College London Fusion and Advanced Reactors Masters course.