WP2: Ion source

Aim: Demonstrate and optimize a high power laser driven ion source for the LhARA beamline

3D simulation of laser driven ion source

Source based on "target normal sheath acceleration" (TNSA) scheme, generating ultra-short, energetic ion beams

SCAPA laser facility (Strathclyde)

Year 2: Experimentally and numerically identify ideal laser and target regime for LhARA beamline using existing laser facilities

Year 5: Develop promising new targetry technology for 10 Hz operation, and introduce active stabilization and optimization techniques

Novel water sheet target (C. Palmer, QUB)