Contribution ID: **54** Type: **Invited Talk (Category for invited speakers only)**

The University of Birmingham's High-Flux Accelerator-Driven Neutron Facility (HF-ADNeF)

Tuesday, 25 February 2025 10:20 (20 minutes)

Birmingham's high flux neutron facility utilises a high power electrostatic accelerator to provide currents of over 30 mA, at 2.6 MeV, onto a rotating lithium target. This gives neutron yields of >3x10¹³ neutrons/sec via the 7Li(*p,n*)7Be reaction. This intense and versatile source enables a wide range of research activities including materials damage, medical physics and radiobiology and nuclear physics.

Facility construction began in March 2020 and first neutrons were achieved in December 2023. Experiences of facility construction and commissioning will be presented along with a selection of research activities from the first year of operation. Upcoming work will also be discussed, with a particular focus on Boron Neutron Capture Therapy (BNCT) and on materials for future fusion applications.

Email Address

Email Address

Presenter if not the submitter of this abstract

Funding Agency

Abstract classification - track type

Facility Updates

Primary author: PHOENIX, Ben (University of Birmingham)

Co-authors: Prof. WHELDON, Carl (University of Birmingham); Dr BISHOP, Jack (University of Birmingham)

Presenter: PHOENIX, Ben (University of Birmingham)

Session Classification: Session 3