

# **Cockcroft PGR conference**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Development of a laser-driven THz source using periodically-poled lithium niobate wafers**

*Wednesday, 15 October 2025 09:10 (20 minutes)*

**Presenter:** DALTON, Patrick (University of Manchester)

**Session Classification:** Talk Session 1 - Novel Accelerators

Contribution ID: 2

Type: **not specified**

**TBC**

*Wednesday, 15 October 2025 09:30 (20 minutes)*

**Presenter:** PECZEK, Filip (University of Manchester)

**Session Classification:** Talk Session 1 - Novel Accelerators

Contribution ID: 3

Type: **not specified**

## **Experimental Investigation Into Supersonic Gas Jet Induced Beam Perturbation**

**Presenter:** BUTCHER, William (University of Liverpool)

**Session Classification:** Talk Session 1 - Novel Accelerators

Contribution ID: 4

Type: **not specified**

## **Terahertz-controlled external injection of electron bunches into a laser-plasma wakefield accelerator**

*Wednesday, 15 October 2025 09:50 (20 minutes)*

**Presenter:** AMINI, Aras (University of Manchester)

**Session Classification:** Talk Session 1 - Novel Accelerators

Contribution ID: 5

Type: **not specified**

## Ion Trapping and Accumulation in EIC ERL

*Wednesday, 15 October 2025 11:00 (20 minutes)*

**Presenter:** BI, Rancheng (Lancaster University)

**Session Classification:** Talk Session 2 - Frontier Accelerators

Contribution ID: 6

Type: **not specified**

## **Towards radiation-hard transverse beam imaging with a multimode fiber and machine learning (remote)**

*Wednesday, 15 October 2025 11:20 (20 minutes)*

**Presenter:** XU, Qiyuan

**Session Classification:** Talk Session 2 - Frontier Accelerators

Contribution ID: 7

Type: **not specified**

## **Single-shot electron bunch profile monitor based on coherent transition radiation imaging**

*Wednesday, 15 October 2025 11:40 (20 minutes)*

**Presenter:** GUISAO BETANCUR, Ana Maria (University of Liverpool)

**Session Classification:** Talk Session 2 - Frontier Accelerators



Contribution ID: 8

Type: **not specified**

## **Designing a Compact Range Shifter for Spatially Fractionated Proton Radiobiology Research**

*Wednesday, 15 October 2025 15:30 (20 minutes)*

**Presenter:** HABGOOD, Rebecca (University of Manchester)

**Session Classification:** Talk Session 3 - Applications

Contribution ID: 9

Type: **not specified**

## Welcome and Introduction

*Wednesday, 15 October 2025 09:00 (10 minutes)*

**Presenter:** ARRAN, Christopher (Lancaster University)

**Session Classification:** Talk Session 1 - Novel Accelerators

Contribution ID: **10**

Type: **not specified**

## **FLASH VHEE Machine System Design**

**Presenter:** SMITH, Euan (University of Manchester)

**Session Classification:** Poster Session

Contribution ID: 11

Type: **not specified**

## **Use of machine learning methods for designing multipole magnets for particle accelerators**

**Presenter:** GRESTY, Sophie (University of Liverpool)

**Session Classification:** Poster Session

Contribution ID: 12

Type: **not specified**

## **Comprehensive study of the impact of filling patterns and transition sets on beam breakup instability for multi-turn energy recovery linac**

*Wednesday, 15 October 2025 12:00 (20 minutes)*

**Presenter:** NUCHSIRIKULAPHONG, Nattaphong (Lancaster University)

**Session Classification:** Talk Session 2 - Frontier Accelerators

Contribution ID: 13

Type: **not specified**

## **Simulations of Gas Jet Density Down Ramps for Laser Wakefield Acceleration at ELI**

**Presenter:** RHODES, Niall (University of Liverpool)

**Session Classification:** Poster Session

Contribution ID: 14

Type: **not specified**

## **Simulation and Feasibility Analysis of a Non-invasive Cavity Bunch Charge Monitor for Low-energy Antiproton Beams**

**Presenter:** CHANDRAN, Sruthy

**Session Classification:** Poster Session

Contribution ID: 15

Type: **not specified**

## **Investigating the Potential Power Reduction Strategies for the UK-XFEL LINAC**

**Presenter:** DISSANAYAKE MUDIYANSELAGE, Maleesh

**Session Classification:** Poster Session



Contribution ID: 16

Type: **not specified**

## **Gas-Jet based Ionization Profile Monitor for Proton FLASH Therapy**

**Presenter:** THESNI MADA PARAMBIL, Farhana (University of Liverpool)

**Session Classification:** Poster Session

Contribution ID: 17

Type: **not specified**

## **External Injection Into Plasma to Produce VHEE Beams**

**Presenter:** BYRNE, Jordan (University of Manchester)

**Session Classification:** Poster Session