

Particle Physics Annual Meeting 2025



### **Max Klein**



### PARTICLE PHYSICS FUNDAMENTAL SCIENCE

It was deeply sad to lose our friend and colleague Max last summer year.

Max led our ATLAS group for many years and was a driving force behind the LHeC and FCC-eh proposals and the PERLE project.

He is still deeply missed by all of us.



# LIVERPOOL \* Changes to the gro

Welcome to New staff: Adam Lowe, Adam Tarrant, John Anders, Enoch Ejopu, Alex Tongue, Andrew Carroll, Alan Taylor, ...

and new PhD students: Razan Alshamrani, Naomi Foster, Liam Jones, Jak Woodford, Stephen Randles, Archie Hanlon, Pawan Pawan, Matthew Ockleton, Mingyu Zhang (Britta), Shirsendu Roy

#### You will hear more from theme in this meeting!

Farewell and huge thank you to: Carlos Chavez, Juan Leite, Cristiano Sebastiani, Akhil Kumar

#### **Congratulations to:**

Promotion to a personal chair: Carl Gwilliam

Fellowship award: Saskia Charity (STFC Ernest Rutherford & University Research Fellowship)

#### **New major coordinating roles:**

- Tara Shears LHCb-UK Spokesperson
- Monica D'Onofrio ATLAS-UK Spokesperson
- Jan Kretzschmar ATLAS Publication Committee Chair
- Eva Vilella: LHCb UK Mighty Tracker Upgrade project lead



## PhDs completed in 2024



Jaiden Parlone - Integrating Updated Interaction Models and a New Multi-Ring Event Sample for a Precision 3-Flavour Neutrino Oscillation Analysis at T2K



**Sam Powell** - Electronics and system design for readout and evaluation of radiation tolerant HV-CMOS particle detectors



Adam Tarrant Measuring the
attenuation of light
in WbLS



Sam Woodford - LZ Outer Detector: Calibrations, Data Quality, and Neutron Veto



**Adam Lowe** - ARIADNE: Fast optical readout of large-scale dual-phase LArTPCs for neutrino physics



**Sigrid Scherl** -MightyPix at the LHCb Mighty Tracker



James Smith - Searches for long-lived particles with a disappearing track signature at Vs = 13 TeV with ATLAS

Congratulations!



Leonie Hawkins Developing Atom
Interferometry for a 85Rb
Fountain and MAGIS-100



**Jan Hammerich -**LHCb MightyTracker



**Ting Fung Lee** Measurement of WH/ZH
production with H to bb with
the ATLAS detector



Lottie Cavanagh -The FASER Experiment: Dark Photon and ALP Searches



### Some general highlights

#### We hosted several meetings

- IOP HEP-APP-NP annual meeting co-hosted with NP group (~300 attendees)
- ITK week hosted in Liverpool (200 attendees)
- LHCb Mighty Tracker Workshop;
- Muon Precision Physics Workshop,
- MuEDM collaboration meeting

Preparing for NUFACT & FASER collab. meeting this summer

#### **Visits**

- Visit of Vice-Chancellor Tim Jones to CERN
- Department visit new STFC CEO Michelle Dougherty

Major upgrade workshop completed

And most importantly our research highlights:

New physics results, progress on projects and new projects

→ see presentations in this meeting





