



UK Nuclear Activity

September 2025 Issue 146

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Newsletter archive: <http://npg.dl.ac.uk/OutreachNewsletter/index.html>

Nuclear Physics Public Engagement Website: [NuclearPhysicsForYou](#)

IoP Support and grants: <https://www.iop.org/about/support-grants>

1. Nuclear Physics Publications for September*

If you are publishing a paper that you think would be of media value, please contact [Wendy Ellison](#), STFC Press Officer. She can help with press releases and publicity. If you get in touch with her before publication, she can also get material ready in advance for the day of publication.

*Also includes missed publications from previous months

Phys. Rev. Lett. **135** 112301 (2025) (<https://doi.org/10.1103/w9kp-f8xr>)
Probing Gluon Fluctuations in Nuclei with the First Energy-Dependent Measurement of Incoherent J/ψ Photoproduction in Ultraperipheral PbPb Collisions
V. Chekhovsky *et al.* (CMS Collaboration)
Published 9 September 2025

Phys. Rev. Lett. **135** 132301 (2025) (<https://doi.org/10.1103/6ywg-gm61>)
Observation of Λ Hyperon Local Polarization in p -Pb Collisions at $\sqrt{s_{NN}}=8.16$ TeV
A. Hayrapetyan *et al.* (CMS Collaboration)
Published 23 September 2025

Phys. Lett. B **870** 139904 (2025) (<https://doi.org/10.1016/j.physletb.2025.139904>)
First high-resolution in-beam γ -ray spectroscopy of neutron-rich Mo isotopes at relativistic energy
B. Moon *et al.*
Published 27 September 2025

Phys. Lett. B **869** (2025) 139855 (<https://doi.org/10.1016/j.physletb.2025.139855>)

Exploring nuclear structure with multiparticle azimuthal correlations at the LHC

ALICE Collaboration, S. Acharya *et al.*

Published 29 September 2025

Phys. Rev. C **112** L031301 (2025) (<https://doi.org/10.1103/423q-cxfh>)

^{61}Cr as a doorway to the $N=40$ island of inversion

L. Lalanne *et al.*

Published 2 September 2025

Phys. Rev. C **112** 034304 (2025) (<https://doi.org/10.1103/sltw-g4d6>)

Charge radii and electromagnetic moments of $^{214-218}\text{Bi}$: Exploring the “southern” border of the $Z>82$ octupole-deformation region

A. Barzakh *et al.*

Published 4 September 2025

Phys. Rev. C **112** 034307 (2025) (<https://doi.org/10.1103/dhbh-12sc>)

Extending the low- Z “border” of the $A=100$ region of deformation with precision mass spectrometry of $^{96-98}\text{Kr}$

D. Lunney *et al.*

Published 5 September 2025

Phys. Rev. C **112** 034310 (2025) (<https://doi.org/10.1103/fqfz-rf2c>)

Measurements of β -delayed proton emitters in the region of ^{100}Sn

C. J. Appleton *et al.*

Published 9 September 2025

Phys. Rev. C **112** 034332 (2025) (<https://doi.org/10.1103/cmks-jst1>)

Triaxiality and shape dynamics in ^{70}Ge

T. M. Kowalewski *et al.*

Published 25 September 2025

Phys. Rev. C **112** 035201 (2025) (<https://doi.org/10.1103/bddq-9qlq>)

Measurement of single- and double-polarization observables in the photoproduction of $\pi^+\pi^-$ meson pairs off the proton using CLAS at Jefferson Laboratory

P. Roy *et al.*

Published 2 September 2025

Phys. Rev. C **112** 035203 (2025) (<https://doi.org/10.1103/kbhx-h4jv>)

Suppression of neutral-pion production in deep-inelastic scattering off nuclei with the CLAS detector

T. Mineeva *et al.*

Published 4 September 2025

Phys. Rev. C **112** 035206 (2025) (<https://doi.org/10.1103/nhvq-7fv7>)

Recoil polarization in K^+Y electroproduction in the nucleon resonance region with CLAS12

D. S. Carman *et al.*

Published 17 September 2025

2. News to Report

a. Scanditronix User Group meeting held in Birmingham

The latest meeting of the Scanditronix User Group took place in early September at the

University of Birmingham – the first time Birmingham has hosted since 2014. The group is a forum for discussion of technical aspects of (largely) Scanditronix cyclotrons, including up-upgrades, ion-source renewal and

optimisation projects, as well as for cyclotron commissioning and de-commissioning. The group shares information & parts and at the meeting agreed to distribute effort, expertise and documentation around the redesign of ageing electronics and control systems.

The meeting was attended by groups from Denmark, Norway, Finland, Korea and the US.



Contribution from Carl Wheldon, University of Birmingham

b. NPL Neutron Users' Club Meeting - 26th November 2025

Each year, we bring together members of the Neutron Users' Club (NUC) to discuss the production, use and metrology of neutron fields.

We're delighted to invite you to network with the community at our Teddington site, enjoy a day of presentations from the experts and explore the exhibition.

The event will be held on Wednesday the 26th of November from 10:00 - 16:00 (GMT).

Speakers will receive a free pass to join us at the event. If you would like to present at the meeting, please contact Events@npl.co.uk.

Ticket prices

- Attendees: £75
- Speakers: Free
- Exhibition space: £400

3. Outreach Activity

4. Media Interactions

Registration Link: [Neutron Users Club 2025](#)

Contribution from Michael Bunce, National Physical Laboratory

c. ePIC and EIC Physics Readiness workshop

On the 17th and 18th of September EIC-related colleagues met for an "ePIC and EIC Physics Readiness Workshop", which was held at the Institute of Physics building in London (<https://indico.global/event/15249/overview>).

The workshop was internationally attended, with 25 in-person participants, including the ePIC spokesperson. The remaining participants joined online (roughly 25 at any one time), with the event being run in a hybrid mode. This was a very fruitful and productive workshop spanning several EIC-physics related topics. Progress towards two upcoming documents currently in preparation by the ePIC Collaboration was discussed. These are the preTDR (precursor to the final TDR for the ePIC detector) and an Early Science report (which will present the expected physics impact of the EIC in its early years of running). Overall, an impressive amount of progress towards these documents was shown, and a path forward towards completion of the documents was discussed. We were grateful to receive support from both UKRI STFC and Brookhaven National Laboratory, which enabled us to support early career researchers in attending this event.

Moving forward, there will be an EIC UK Meeting held at the University of York on the 8th and 9th of December 2025, to bring together UK based EIC researchers. Everyone interested is more than welcome to attend (<https://indico.bnl.gov/event/29652/overview>)

Contribution from Rachel Montgomery, University of Glasgow on behalf of Stephen Kay (University of York), Stephen Maple (University of Birmingham), Paul Newman (University of Birmingham), and Daria Sokhan (University of Glasgow)