UK Nuclear Activity

Augus 2024 Issue 133

In this issue,

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

Nuclear Physics Public Engagement Website: NuclearPhysicsForYou

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1. Nuclear Physics Publications for August*

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.

Phys. Rev. Lett. **133** 072501 (2024) (https://doi.org/10.1103/PhysRevLett.133.072501)
First Exploration of Monopole-Driven Shell Evolution above the N=126 Shell Closure: New Millisecond Isomers in ^{213}Tl and ^{215}Tl
T. T. Yeung et al.
Published 13 August 2024

Phys. Rev. Lett. **133** 092301 (2024) (https://doi.org/10.1103/PhysRevLett.133.092301)
Measurements of Chemical Potentials in Pb-Pb Collisions at $\sqrt{s_{NN}}$ = 5.02 TeV
S. Acharya et al. (ALICE Collaboration)
Published 26 August 2024

Phys. Rev. C **110** 024314 (2024) (https://doi.org/10.1103/PhysRevC.110.024314)
Isospin symmetry breaking in the T=1, A=70 triplet
G. L. Zimba et al.
Published 16 August 2024

Phys. Rev. C **110** 024318 (2024) (https://doi.org/10.1103/PhysRevC.110.024318)
Reevaluation of structures in ^{70}Se from combined conversion-electron and γ-ray spectroscopy
J. Smallcombe et al.
Published 20 August 2024

Edited by Jack Henderson, IOP Nuclear Physics Group Committee
jack.henderson@surrey.ac.uk

Phys. Rev. D **110** 032014 (2024) (https://doi.org/10.1103/PhysRevD.110.032014)
Measurement of Ω^0_c baryon production and branching-fraction ratio BR($\Omega^0_c \to \Omega^- e^+ \nu_e$)/BR($\Omega^0_c \to \Omega^- \pi^+$) in pp collisions at $\sqrt{s}$ = 13 TeV
S. Acharya et al. (ALICE Collaboration)
Published 12 August 2024

Phys. Rev. D **110** 032004 (2024) (https://doi.org/10.1103/PhysRevD.110.032004)
Studying the interaction between charm and light-flavor mesons
S. Acharya et al. (ALICE Collaboration)
Published 5 August 2024

Eur. Phys. J. C **84** 813 (2024) (https://doi.org/10.1140/epjc/s10052-024-12935-y)
The ALICE experiment: a journey through QCD
ALICE Collaboration., Acharya, S., Adamová, D. et al
Published 14 August 2024

Phys. Lett. B **856** (2024) 138915 (https://doi.org/10.1016/j.physletb.2024.138915)
Investigating the composition of the $K^*_0(700)$ state with $\pi^{\pm}K^0_S$ correlations at the LHC
S. Acharya et al. (ALICE Collaboration)
Published 30 July 2024

*Also includes missed publications from previous months

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2. News to Report

a. Second UK-India Education and Research Initiative workshop held

Contribution from Dr. Adam Featherstone, University of York

On 5th and 6th August 2024, a team from the University of York visited the Indian Institute of Technology Bombay for the second of four partnership workshops. The collaboration - supported by the UK-India Education and Research Initiative (UKIERI) - is centred on co-developing mechanically flexible radiation detectors, initially for the nuclear industry. We were also delighted to be joined by speakers from Tata Institute of Fundamental Research and Tata Memorial Hospital, exploring the potential of such detectors in basic research and nuclear medicine.

b. 2024 Master's Student Bursary - Uranics Innovation Centre

A bursary funding opportunity for master's students has been announced: *2024 Master's Student Bursary - Uranics Innovation Centre*

There are a minimum of 20 bursaries available this Financial Year (2024/25) (for up to £5000) to enable and encourage students to work on topics of national priority relating to uranium based nuclear fuels and supporting front end fuel cycle activities with a focus on:

- Purification
- Conversion
- Deconversion
- Fuel design
- Fuel Manufacturing and waste/effluents management
- U recovery/separations
- Fuel Performance
- Advanced geometry test reactor fuel

The bursaries will be delivered through the Department for Energy Security and Net Zero

(DESNZ) Nuclear Fuel Fund Uranics Innovation Centre.

For more information see:
2024 Master's Student Bursary - Uranics Innovation Centre

Masters Student Bursary 2024 - Uranics Innovation Centre - National Nuclear Laboratory (nnl.co.uk)

Contribution from Dr. Iain Darby, National Nuclear Laboratory

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3. Outreach Activity

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4. Media Interactions

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