



# UK Nuclear Activity

January 2023 Issue 114

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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 January\*

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. **130** 012501 (2023) (<https://doi.org/10.1103/PhysRevLett.130.012501>)

*Study of the N=32 and N=34 Shell Gap for Ti and V by the First High-Precision Multireflection Time-of-Flight Mass Measurements at BigRIPS-SLOWRI*

S. Iimura *et al.*

Published 5 January 2023

Phys. Rev. Lett. **130** 022501 (2023) (<https://doi.org/10.1103/PhysRevLett.130.022501>)

*Observation of Correlations between Spin and Transverse Momenta in Back-to-Back Dihadron Production at CLAS12*

H. Avakian *et al.* (CLAS Collaboration)

Published 11 January 2023

Phys. Lett. B **836** 137629 (2023) (<https://doi.org/10.1016/j.physletb.2022.137629>)

*Unbound states in  $^{17}\text{C}$  and  $p$ - $sd$  shell-model interactions*

S. Kim *et al.*

Published 10 January

Phys. Rev. C **107** 014306 (2023) (<https://doi.org/10.1103/PhysRevC.107.014306>)

*Odd-odd neutron-rich rhodium isotopes studied with the double Penning trap JYFLTRAP*

M. Hukkane *et al.*

Published 17 January 2023

Phys. Rev. C **107** 014308 (2023) (<https://doi.org/10.1103/PhysRevC.107.014308>)

*Decay spectroscopy of  $^{171,172}\text{Os}$  and  $^{171,172,174}\text{Ir}$*

W. Zhang *et al.*

Published 19 January 2023

Phys. Rev. C **107** 014311 (2023) (<https://doi.org/10.1103/PhysRevC.107.014311>)

*Gamow-Teller decay of  $^{142}\text{Te}$  to  $^{142}\text{I}$*

B. Moon *et al.*

Published 20 January 2023

Phys. Rev. C **107** 014324 (2023) (<https://doi.org/10.1103/PhysRevC.107.014324>)

*Spectroscopic quadrupole moments in  $^{124}\text{Xe}$*

E. Clement *et al.*

Published 30 January 2023

Phys. Rev. C **107** 015201 (2023) (<https://doi.org/10.1103/PhysRevC.107.015201>)

*Exclusive  $\pi^-$  electroproduction off the neutron in deuterium in the resonance region*

Y. Tian *et al.* (The CLAS Collaboration)

Published 5 January 2023

NIM A **1048** 168007 (2023) (<https://doi.org/10.1016/j.nima.2022.168007>)

*CARME — The CRYRING Array for Reaction MEasurements: A new approach to study nuclear reactions using storage rings*

C. G. Bruno *et al.*

Published 9 January 2023

Chin. Phys. C **47** 034105 (2023) (<http://dx.doi.org/10.1088/1674-1137/acac6b>)

*Isoscalar Monopole Strength in  $^{100}\text{Mo}$ : An Indicator of Static Triaxial Deformation in the Ground State*

Yue Shi (石跃) and P. D. Stevenson

Published 20th December 2022

Chapter in "Handbook of Nuclear Physics", (Springer Nature Singapore 2022) pp.1-44

([https://doi.org/10.1007/978-981-15-8818-1\\_44-1](https://doi.org/10.1007/978-981-15-8818-1_44-1))

*Charged-Particle Radioactive Decays*

B. Blank and R. D. Page

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## 2. News to Report

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## 3. Outreach Activity

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## 4. Media Interactions

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