



UK Nuclear Activity

July 2023 Issue 120

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

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

1. Nuclear Physics Publications for July*

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. **131** 022501 (2023) (<https://doi.org/10.1103/PhysRevLett.131.022501>)

^{133}In : A Rosetta Stone for Decays of r-Process Nuclei

Z. Y. Xu et al.

Published 14 July 2023

Phys. Rev. Lett. **131** 022502 (2023) (<https://doi.org/10.1103/PhysRevLett.131.022502>)

Isomeric Excitation Energy for $^{99}\text{In}^m$ from Mass Spectrometry Reveals Constant Trend Next to Doubly Magic ^{100}Sn

L. Nies et al.

Published 14 July 2023

Phys. Rev. Lett. **131** 042301 (2023) (<https://doi.org/10.1103/PhysRevLett.131.042301>)

Enhanced Deuteron Coalescence Probability in Jets

S. Acharya et al. (ALICE Collaboration)

Published 26 July 2023

Phys. Rev. Lett. **131** 042303 (2023) (<https://doi.org/10.1103/PhysRevLett.131.042303>)

Measurement of the J/ψ Polarization with Respect to the Event Plane in Pb-Pb Collisions at the LHC

S. Acharya et al. (ALICE Collaboration)

Published 25 July 2023

Phys. Rev. C **108** L011303 (2023) (<https://doi.org/10.1103/PhysRevC.108.L011303>)

Probing triaxiality beyond the proton drip line: Spectroscopy of ^{147}Tm

K. Auranen et al.

Published 11 July 2023

- Phys. Rev. C **108** 014304 (2023) (<https://doi.org/10.1103/PhysRevC.108.014304>)
Level structure of ^{221}Ac and ^{217}Fr from decay spectroscopy, and reflection asymmetry in ^{221}Ac
E. Rey-herme et al.
Published 5 July 2023
- Phys. Rev. C **108** 014308 (2023) (<https://doi.org/10.1103/PhysRevC.108.014308>)
Simultaneous γ -ray and electron spectroscopy of $^{182,184,186}\text{Hg}$ isotopes
M. Stryczyk et al. (IDS Collaboration)
Published 6 July 2023
- Phys. Rev. C **108** 014314 (2023) (<https://doi.org/10.1103/PhysRevC.108.014314>)
 β -delayed neutron spectroscopy of ^{133}In
Z. Y. Xu et al.
Published 14 July 2023
- Phys. Rev. C **108** 014317 (2023) (<https://doi.org/10.1103/PhysRevC.108.014317>)
High-K three-quasiparticle isomers in the proton-rich nucleus ^{129}Nd
C. M. Petrache et al.
Published 19 July 2023
- Phys. Rev. C **108** 014616 (2023) (<https://doi.org/10.1103/PhysRevC.108.014616>)
Measurement of the neutron-induced fission cross section of ^{230}Th at the CERN n_TOF facility
V. Michalopoulou et al. (n_TOF Collaboration)
Published 26 July 2023
- Nuclear Science and Techniques **34** 104 (2023) (<https://doi.org/10.1007/s41365-023-01250-y>)
Double-up for single-ion masses
P. M. Walker
Published 17 July 2023
- Eur. Phys. J. A **59** 165 (2023) (<https://doi.org/10.1140/epja/s10050-023-01082-9>)
Photonuclear reactions with charged particles detection for nuclear astrophysics studies
C. R. Brune et al.
Published 19 July 2023
- Eur. Phys. J. A **59** 173 (2023) (<https://doi.org/10.1140/epja/s10050-023-01073-w>)
A three-ranged Gogny interaction in touch with pion exchange: promising results to improve infinite matter properties
L. Batail et al.
Published 28 July 2023
- Eur. Phys. J. A **59** 154 (2023) (<https://doi.org/10.1140/epja/s10050-023-01063-y>)
Diverse mechanisms in proton knockout reactions from the Borromean nucleus ^{17}Ne
F. Wamers et al.
Published 12 July 2023
- Eur. Phys. J. A **59** 153 (2023) (<https://doi.org/10.1140/epja/s10050-023-01051-2>)
Study of N=50 gap evolution around Z=32: new structure information for ^{82}Ge
D. Thisse et al.
Published 11 July 2023
- Eur. Phys. J. A **59** 144 (2023) (<https://doi.org/10.1140/epja/s10050-023-01032-5>)
AGATA: nuclear structure advancements with fusion-evaporation reactions
G. de Angelis et al.
Published 3 July 2023

Eur. Phys. J. A **59** 152 (2023) (<https://doi.org/10.1140/epja/s10050-023-01057-w>)
Organisation of the AGATA collaboration and physics campaigns
E. Clement et al.
Published 11 July 2023

Eur. Phys. J. A **59** 158 (2023) (<https://doi.org/10.1140/epja/s10050-023-01036-1>)
Simulation of the AGATA spectrometer and coupling with ancillary detectors
M. Labiche et al.
Published 17 July 2023

Eur. Phys. J. A **59** 166 (2023) (<https://doi.org/10.1140/epja/s10050-023-01046-z>)
AGATA: mechanics and infrastructures
R. Smith et al.
Published 20 July 2023

Eur. Phys. J. A **59** 172 (2023) (<https://doi.org/10.1140/epja/s10050-023-01075-8>)
Agata: in-beam spectroscopy with relativistic beams
M. A. Bentley, G. Benzoni and K. Wimmer
Published 27 July 2023

*Also includes missed publications from previous months

2. News to Report

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3. Outreach Activity

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4. Media Interactions

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