

Arnd Rudolf Junghans

Biographical Data:

Born: Frankfurt am Main, April 22, 1968
Education: Technische Hochschule Darmstadt, Physics, Diplom (mit Auszeichnung), Apr. 1994
Technische Hochschule Darmstadt, Dr. rer. nat. (magna cum laude); Jan. 1998
Appointments: Technische Hochschule Darmstadt, Research Assistant, 1994-98
Gesellschaft für Schwerionenforschung, Darmstadt ,Postdoc, Feb. 1998 - Jan. 1999
University of Washington, Seattle, Research Associate, 1999-2001
University of Washington, Research Assistant Professor, Jul. 2001-Dec. 2002
Helmholtz-Zentrum Dresden-Rossendorf, Research scientist, Jan. 2003-present,
group leader "Nuclear data measurements" Jan. 2015- ,
Professional Societies: Deutsche Physikalische Gesellschaft

Research Fields:

Experimental Nuclear Physics, Neutron time-of-flight measurements,
CERN nTOF collaboration, Nuclear Astrophysics and Heavy-Ion Physics

Bibliography: >200 published papers; [ORCID ID](#)

Five selected publications:

"Fast-neutron-induced fission cross section of ^{242}Pu measured at the neutron time-of-flight facility nELBE"

T. Kögler, A. R. Junghans, R. Beyer, M. Dietz, Ch. E. Düllmann, K. Eberhardt, Ch. Lorenz, S. E. Müller, R. Nolte, T. P. Reinhardt, K. Schmidt, J. Runke, R. Schwengner, M. Takacs, A. Vascon, and A. Wagner *Phys. Rev. C* **99** 024604 (2019)

"Breaking of axial symmetry in excited heavy nuclei as identified in giant dipole resonance data"

E. Grosse, A.R. Junghans, R. Massarczyk *Eur. Phys. Jour. A* **53** (2017) 225

"Inelastic scattering of fast neutrons from excited states in ^{56}Fe "

R.Beyer, R.Schwengner, R.Hannaske, A.R.Junghans, R.Massarczyk, M.Anders, D.Bemmerer, A.Ferrari, A.Hartmann, T.Kögler, M.Röder, K.Schmidt, A.Wagner *Nucl. Phys. A* **927** (2014) 41-52

"Solar fusion cross sections II: The pp chain and CNO cycles"

E. G. Adelberger *et al.*, *Rev. Mod. Phys.* **83** 195 (2011)

"Projectile-fragment yields as a probe for the collective enhancement in the nuclear level density",

A. R. Junghans, M. de Jong, H.-G. Clerc, A. V. Ignatyuk, G. A. Kudyaev, K.-H. Schmidt, *Nucl. Phys. A* **629**, 635 (1998).

Selected Conference Contributions:

" Breaking of axial symmetry in excited nuclei as identified in experimental data" A. R. Junghans, E. Grosse, R. Massarczyk *Proc. Int. Conf. Nuclear Data for Science and Technology (ND2016)*, Bruges, 2016

"Fast-Neutron measurements at the nELBE Time-of-Flight Facility" A. R. Junghans, R. Beyer, E. Grosse, R. Hannaske, T. Kögler, R. Massarczyk, R. Schwengner, and A. Wagner *15th International Symposium on Capture Gamma-ray Spectroscopy (CGS15)*, Dresden, 2014

"Photodisintegration studies on p-nuclei: the case of Mo and Sm isotopes" C. Nair, A. R. Junghans, M. Erhard, D. Bemmerer, R. Beyer, P. Crespo, E. Grosse, M. Fauth, K. Kosev, G. Rusev, K. D. Schilling, R. Schwengner and A. Wagner, , *Europhysics Conference Nuclear Physics in Astrophysics III (NPA3)*, Dreden 2007

"A new determination of the astrophysical S factor for the $^7\text{Be}(p,\gamma)^8\text{B}$ reaction from direct cross section measurements", *Proceedings of the International Nuclear Physics Conference, INPC01, Berkeley, CA July 30 - August 3, 2001*, and *Bull. Am. Phys. Soc.* **46**, (2001).

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BMBF (German federal ministry for education and research) Verbundprojekt "Transmutationsrelevante Kernphysikalische Untersuchungen...", 02NUK013, 01.10.2009 - 31.12.2014; [website](#)

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