



Personal information

Date of birth:

10.08.1941

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German

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Bibliographic summary

Publications: 477

Citing articles: 5536 (5121)

Times cited: 11819 (9453)

H-index: 54

Source: Web of Science

(27.09.2021)

Awards

**- Professor honoris
causa**

Moscov State University
(2004)

- Humboldt Scholarship

Prix Franco-Allemand
Gay-Lussac (2000)

- Other

Order of Merit of the
Federal Republic of
Germany, Cross of Merit
on ribbon (1999)

Curriculum Vitae

Prof. em. Dr. rer. nat. habil. Dr. h.c. Gerd Röpke

Professional experience

2015 - current;
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute) - Guest professor;

2008 - current;
Heisenberg-Landau Steering Committee, JINR Dubna - Chairman;

2002 - 2006;
University of Rostock - Prorektor;

2000 - current;
Sächsische Akademie der Wissenschaften, Leipzig - External Member;

1997 - current;
Max Planck Society, MPI Heidelberg - External Member;

1994 - 1997;
Bogoliubov Laboratory of Theoretical Physics, JINR Russia - Vice-director;

1994 - 1996;
Faculty of Mathematics and Natural Sciences, University of Rostock - Prodekan;

1991 - 1994;
Faculty of Mathematics and Natural Sciences, University of Rostock - Dean;

1991 - 1994;
DESY - Member of the Scientific Council;

1991 - 1994;
FRG - Ordinary Member of the Scientific Council;

1991 - 1994;
German Physical Society - Member of the Presidium;

1990 - 1994;
European Physical Society - Council;

1990 - 1996;
Federal Ministry of Research and Technology - Member of the Expert Commission (Nuclear Physics);

1990;
Physics Commission of the Federal Republic of Germany - Scientific Council;

02.1990 - 11.1990;
Physical Society of the GDR - President;

1989 - 1997;
C3 Commission of IUPAP - Member;

1986 - 1991;
Section of Physics, University of Rostock - Vice-director;

1983 - 1991;
Faculty of Mathematics and Natural Sciences, University of Rostock - Member of the Scientific Council;

Scientific experience

2009;
University of Rostock - Professor emeritus;

1992-2009;
University of Rostock - C4-Professur "Theoretical Physics I";

1992-1996;
University of Rostock - Head of the Working Group "Theoretical Many Particle Physics";

1990 - 1992;
University of Rostock - Ordinarius for Theoretical Physics;

Working fields: quantum statistics, nonequilibrium, statistical physics with applications for plasma physics, solid state physics, nuclear physics;

1987 - 1990;
University of Rostock - Professor Extraord. for Theoretical Physics;

1977 - 1987;
University of Rostock - Appointed University Lecturer (Dozent) for Theoretical Physics;

1973;
Technical University of Dresden - Habilitation (Dr. sc. nat.);
Questions of the strongly correlated electron system, non-equilibrium statistical mechanics.

1966 - 1977;
Department of Physics, Technical University of Dresden - Assistant;
Working field: Theory of solid state magnetism

1966;
University of Leipzig - PhD thesis dealing with functional integration techniques in quantum mechanics;

Appendix

scientific achievements

Summary

- ca. 500 publications in different topics of physics, i.e. solid state physics, nonequilibrium statistics, plasma physics, quantum statistics and nuclear physics;
- 7 monographs;
- tutoring of about 50 dissertations and several diploma theses;

Three selected recent publications:

- G. Röpke, *Light p -shell nuclei with cluster structures ($4 \leq A \leq 16$) in nuclear matter*, Phys. Rev. C **101**, 064310 (2020). Cited: 13
- G.C. Strinati, P. Pieri, G. Röpke, P. Schuck and M. Urban, *The BCS–BEC crossover: From ultra-cold Fermi gases to nuclear systems*, Phys. Reports **738**, 1–76 (2018). Cited: 106
- A. Tohsaki, H. Horiuchi, P. Schuck and G. Röpke, *Status of α -particle condensate structure of the Hoyle state*, Rev. Mod. Phys. **89**, 011002 (2017). Cited: 54

List of major publications

- G. Röpke, *Nuclear matter equation of state including two-, three-, and four-nucleon correlations*, Phys. Rev. C **92**, 054001 (2015). Cited: **38**
- P. Sperling, E. J. Gamboa, H. J. Lee, H. K. Chung, E. Galtier, Y. Omarbakiyeva, H. Reinholz, G. Röpke, U. Zastra, J. Hastings, L. B. Fletcher, and S. H. Glenzer, *Free-Electron X-Ray Laser Measurements of Collisional-Damped Plasmons in Isochorically Heated Warm Dense Matter*, Phys. Rev. Lett. **115**, 115001 (2015). Cited: **79**
- G. Röpke, P. Schuck, Y. Funaki, H. Horiuchi, Z. Ren, A. Tohsaki, C. Xu, T. Yamada, and B. Zhou, *Nuclear clusters bound to doubly magic nuclei: The case of $Po-212$* , Phys. Rev. C **90**, 034304 (2014). Cited: **68**
- S. Typel, G. Röpke, T. Klähn, D. Blaschke, and H. H. Wolter, *Composition and thermodynamics of nuclear matter with light clusters*, Phys. Rev. C **81**, 015803 (2010). Cited: **442**
- J. B. Natowitz, G. Röpke, S. Typel, D. Blaschke, A. Bonasera, K. Hagel, T. Klähn, S. Kowalski, L. Qin, S. Shlomo, R. Wada, and H. H. Wolter, *Symmetry Energy of Dilute Warm Nuclear Matter*, Phys. Rev. Lett. **104**, 202501 (2010). Cited: **142**
- Y. Funaki, H. Horiuchi, W. von Oertzen, G. Röpke, P. Schuck, A. Tohsaki, and T. Yamada, *Concepts of nuclear α -particle condensation*, Phys. Rev. C **80**, 064326 (2009). Cited: **123**
- Bob Nagler et al., *Turning solid aluminium transparent by intense soft X-ray photoionization*, Nature Physics **5**, 693 (2009). Cited: **210**
- Y. Funaki, T. Yamada, H. Horiuchi, G. Röpke, P. Schuck, and A. Tohsaki, *α -Particle Condensation in ^{16}O Studied with a Full Four-Body Orthogonality Condition Model Calculation*, Phys. Rev. Lett. **101**, 082502 (2008). Cited: **153**
- T. Klähn, D. Blaschke, S. Typel, E. N. E. van Dalen, A. Faessler, C. Fuchs, T. Gaitanos, H. Grigorian, A. Ho, E. E. Kolomeitsev, M. C. Miller, G. Röpke, J. Trümper, D. N. Voskresensky, F. Weber, and H. H. Wolter, *Constraints on the high-density nuclear equation of state from the phenomenology of compact stars and heavy-ion collisions*, Phys. Rev. C **74**, 035802 (2006). Cited: **307**
- Y. Funaki, A. Tohsaki, H. Horiuchi, P. Schuck, and G. Röpke, *Analysis of previous microscopic calculations for the second 0^+ state in ^{12}C in terms of $3-\alpha$ particle Bose-condensed state*, Phys. Rev. C **67**, 051306(R) (2003). Cited: **254**
- A. Tohsaki, H. Horiuchi, P. Schuck, and G. Röpke, *Alpha cluster condensation in $C-12$ and $O-16$* , Phys. Rev. Lett. **87**, 192501 (2001). Cited: **584**
- H. Reinholz, R. Redmer, G. Röpke, and A. Wierling, *Long-wavelength limit of the dynamical local-field factor and dynamical conductivity of a two-component plasma*, Phys. Rev. E **62**, 5648 (2000). Cited: **142**
- G. Röpke, A. Schnell, P. Schuck, and P. Nozières, *Four-Particle Condensate in Strongly Coupled Fermion Systems*, Phys. Rev. Lett. **80**, 3177 (1998). Cited: **220**
- S. Schmidt, D. Blaschke, G. Röpke, S. A. Smolyansky, A. V. Prozorkevich, and V. D. Toneev, *A Quantum Kinetic Equation for Particle Production in the Schwinger Mechanism*, Intern. J. Mod. Phys. E **7**, 709 (1998). Cited: **163**
- M. Schmidt, G. Röpke, and H. Schulz, *Generalized Beth-Uhlenbeck approach for hot nuclear matter*, Ann. Phys. **202**, 57 (1990). Cited: **205**
- G. Röpke, *Quantum-statistical approach to the electrical conductivity of dense, high-temperature plasmas*, Phys. Rev. A **38**, 3001 (1988). Cited: **102**
- G. Röpke, M. Schmidt, L. Muenchow, and H. Schulz, *Particle clustering and Mott transitions in nuclear matter at finite temperature: (II): Self-consistent ladder Hartree-Fock approximation and model calculations for cluster abundances and the phase diagram*, Nucl. Phys. A **399**, 587 (1983). Cited: **118**
- G. Röpke, L. Muenchow, and H. Schulz, *Particle clustering and Mott transitions in nuclear matter at finite temperature: (I). Method and general aspects*, Nucl. Phys. A **379**, 536 (1982). Cited: **150**
- R. Zimmermann, K. Kilimann, W.-D. Kraeft, D. Kremp, and G. Röpke, *Dynamical screening and self-energy of excitons in the electron-hole plasma*, Phys. Status Solidi (b) **90**, 175 (1978). Cited: **242**