

**Mgr. Andrej Gendiar, PhD.**

Research Center for Quantum Information  
Institute of Physics, Slovak Academy of Sciences  
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**Date and place of birth:** October 26, 1973 in Partizánske (Slovakia)

**Nationality:** Slovak

**Gender:** male

**Status:** married, two children

**Education:**

- **Mgr.** (*MSc. equiv.*), in *Theoretical and Mathematical Physics, Faculty of Mathematics, Physics, and Informatics, Comenius University, Bratislava, June 1997.*  
Specification: *General Theory of Relativity and Cosmology.*  
Diploma thesis: *"Inflating Universe in presence of a flat scalar wave" (in Slovak).*
- **Ph.D.**, in *General Physics and Mathematical Physics, Institute of Physics, Slovak Academy of Sciences, Bratislava, January 2001.*  
Specification: *Theory of Solid State Physics, Commensurate-Incommensurate Phase Transitions, and Critical Phenomena of Spin Lattice Systems.*  
*PhD. Thesis entitled "Studies of statistical mechanical systems by numerical renormalization group approaches" (in English).*

**Employment:**

- **2000 – 2001:** Institute of Physics, Slovak Academy of Sciences (SAS) as a research scientist.
- **2001 – 2010:** Institute of Electrical Engineering, SAS, as a research scientist.
- **Since 2001:** Institute of Physics, SAS, managing editor of journal *Acta Physica Slovaca* (a journal for physics – Reviews and Tutorials; indexed in CC, <http://www.physics.sk/aps/>).
- **Since Aug 2010:** Research Center for Quantum Information, Institute of Physics SAS, as an independent researcher (grade IIa): <http://www.quantum.physics.sk/rcqi/index.php?x=people>.
- **Since 2014:** vice chairman of the scientific board at Institute of Physics SAS.
- **Since Oct 2019:** deputy director at Institute of Physics, Slovak Academy of Sciences.

**Experience:**

- **2001 – 2003:** Two-year postdoctoral position at Kobe University in Japan (fellow of Japanese Society for the Promotion of Science (JSPS)); group of Prof. Tomotoshi Nishino.
- **Since 2004:** short-period stays in Forschungszentrum Juelich in Germany and at Kobe University in Japan
- **May 2007:** independent research scientist (grade IIa)
- **2008 – 2009:** One-year postdoctoral position at RWTH University in Aachen (Germany) as a fellow of the Alexander von Humboldt foundation (AvH); group of Prof. Ulrich Schollwöck.
- **2017 (four months):** sabbatical position at RIKEN in Tokyo (Prof. S. Tarucha, Prof. D. Loss)
- **Supervision** of three master-course students and six PhD students.

**Collaborations**

- Kobe University (Prof. T. Nishino), Vienna University (Prof. F. Verstraete), Nancy Uni (Prof. Ch. Chatelain), Zielona Gora University (Prof. A. Drzewinski), Tuebingen University (Prof. S. Andergassen), PTB Braunschweig (Dr. M. Weyrauch).

**Honors and Memberships:**

- Awarded by the 1<sup>st</sup> prize of Presidium of Slovak Academy of Sciences for best scientific results within Slovak Academy of Sciences (June 2001).
- Awarded by the 1<sup>st</sup> prize of Slovak Physical Society in category of young scientific researchers for best results in Physics (July 2001).
- Member of the American Physical Society (since 2008), American Chemical Society (since 2012), and Slovak Physical Society (since 2000)
- Member of the research group at department of the theoretical physics of Kobe University (Japan): [http://quattro.phys.sci.kobe-u.ac.jp/Bussei\\_Riron/staff\\_e.html](http://quattro.phys.sci.kobe-u.ac.jp/Bussei_Riron/staff_e.html)
- Member of the Editorial Board of Slovak Academy of Sciences
- Member of the scientific board for awarding PhD degrees in General and Math. Physics
- Referee for *Phys. Rev. Lett.*, *Phys. Rev. B & E*, *J. Phys. Chem.*, *J. Phys. A*, *Physica A*, etc.

**Skills and Qualifications:**

- Density Matrix Renormalization Group, Exact Diagonalization, Tensor Product States, Tensor Networks, Quantum Gravity – AdS/CFT correspondence, Quantum Monte Carlo.
- All platforms (Mac OS, Unix/Linux, Win), programming languages Fortran, C/C++, Pascal,...
- Fluent in English and Russian, skills in German, Japanese, and French.