

Mgr. Andrej Gendiar, PhD.

Senior Researcher in Theoretical and Mathematical Physics
at the Institute of Physics, Slovak Academy of Sciences.

1. PERSONAL INFORMATION

Home address:	Húščavova 3, 841 01 Bratislava, Slovak Republic
Work address:	Research Center for Quantum Information, Institute of Physics Slovak Academy of Sciences, Dúbravská c. 9, 845 11, Bratislava
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Web LinkedIn:	Work (RCQI SAS) LinkedIn
Date of Birth Nationality:	26 October 1973 Slovak

2. WORK EXPERIENCE

08/2010 – Present

Group leader - Quantum Simulations and Computing

*Research Center for Quantum Information, Institute of Physics,
Slovak Academy of Sciences (IP SAS) in Bratislava*

- Tensor Networks, Matrix Product States, Renormalization Group methods, phase transitions, and critical phenomena on hyperbolic and Euclidean geometries;
- Project manager, deputy director at IP SAS, member of the scientific board at IP SAS, member of the Editorial board, and member in VEGA project commission;
- Research stays at universities in Japan, the USA, Germany, the UK, France, Taiwan, etc;
- Member of the American Physical and Chemical Societies;
- Managing Editor of the journal Acta Physica Slovaca;
- Supervising PhD students, Master's and Bachelor's students;
- Teaching at Comenius University, Faculty of Mathematics, Physics, and Informatics for doctoral-course students (Eng.);
- Supervising PhD student, Yoju Lee, at Vienna University.

07/2010 – 01/2001

Research Scientist

*Institute of Electrical Engineering, Slovak Academy of Sciences
in Bratislava*

- Quantum nanowires and mesoscopic physics, Quantum Monte Carlo simulations, and Hartree-Fock approximations;
- Density Matrix Renormalization Group for strongly correlated, low-dimensional systems;
- Supervising PhD students.

3. EDUCATION AND POSTDOCS

11/2017 – 02/2018

Postdoc: RIKEN Tokyo

RIKEN, Japan, Quantum Functional System Research Group at Tokyo (Wakou), under Prof. Seigo Tarucha and Prof. Daniel Loss.

09/2008 – 08/2009

Postdoc: Alexander von Humboldt-Stiftung (AvH fellow)

*RVTH University, Faculty of Physics, Aachen, Germany.
Humboldt fellowship in group of Prof. Ulrich Schollwöck*

12/2001 – 11/2003

Postdoc: Japanese Society for the Promotion of Science

Kobe University, Faculty of Science, Department of Theoretical Physics, Kobe, Japan. JSPS fellow at Prof. Tomotoshi Nishino

08/1997 – 12/2000

PhD Degree: General Physics and Mathematical Physics

*Slovak Academy of Sciences, Institute of Physics, Bratislava.
PhD thesis: Studies of statistical mechanical systems by numerical renormalization group approaches.*

09/1992 – 06/1997

Master's Degree: Theoretical and Mathematical Physics

*Comenius University in Bratislava, Faculty of Mathematics, Physics, and Informatics, Bratislava
Core Subjects: Quantum Physics, General Theory of Relativity, Mathematical Physics. Diploma thesis: Inflating Universe in the presence of scalar wave.*

4. PERSONAL SKILLS

Mother tongue: Slovak

Foreign Languages:

Language	Listening	Reading	Spoken Interaction	Writing
English	C1 (Proficient)	C1 (Proficient)	C1 (Proficient)	C1 (Proficient)
German	B1 (Independent)	B2 (Independent)	B1 (Independent)	B1 (Independent)
Russian	B1 (Independent)	B1 (Independent)	B1 (Independent)	B1 (Independent)
French	A2 (Elementary)	A2 (Elementary)	A2 (Elementary)	A2 (Elementary)

Digital Skills:

Coding in Programming Languages (Julia, Python, C/C++, Fortran), MacOS, Unix/Linux, MS Win, Supercomputer parallelization, AI.

Organizational / Managerial:

Team leadership, Project management, Methodology analysis, University teaching, and Software development management.

Communication Skills:

Strong scientific presentation skills, Popularization presentations about quantum physics and general relativity, Supervising skills for postdocs, PhDs, undergraduate students, Intercultural communications, and Workplace and HR settings.

Driving License:

Category B (active driver)