





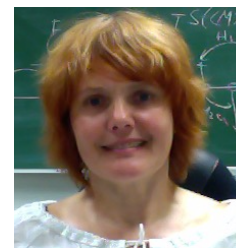


PERSONAL
INFORMATION**Olena V. Gomonay, Prof.**

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 Senior Researcher (E13)

ResearcherID: [L-8638-2015](#)ORCID [0000-0002-9413-0337](#)

Sex Female | Date of birth January 7, 1963 | Nationality Ukrainian

Family Married, two children

EDUCATION

Sep 1979 – Jul 1985 **Moscow Institute of Physics and Technology**
 Master of Science, diploma with honor,
 Condensed matter physics, Moscow, Russia

TITLES

2002 **Associate Professor** of the Chair of information technology,
 National Technical University of Ukraine "KPI"
 2015 **Professor** of the Chair of information technology,
 National Technical University of Ukraine "KPI" (equivalent to German habilitation, as
 confirmed by German Zentrastelle für ausländisches Bildungswesen as)

THESIS

- **M.Sc.** (1985) in the field of "Condensed Matter Physics", "Spin-wave spectra in triangular antiferromagnet Mn₃NiN", Moscow institute for Physics and Technology, diploma with honor
- **Ph.D.** (1992) in the field of "Condensed Matter Physics", "Phenomenological theory of phase transitions in triangular antiferromagnets with perovskite structure", Institute for Metal Physics, Academy of Sciences, Kiev, Ukraine.
- **Doctoral degree** (2003) in the field of "Condensed Matter Physics", "Phenomenologic models of the magnetic and elastic properties of the alloys in the vicinity of thermoelastic phase transitions" Kurdumov's Institute for Metal Physics, National Academy of Sciences, Kiev, Ukraine.

CAREER

2015 - present Scientific Researcher (E13) in SPICE-INSPIRE group, Johannes Gutenberg-Universität Mainz, Germany
 2002- 2015 Professor at the Institute of Physics and Technology, National Technical University of Ukraine "KPI", Kyiv, Ukraine
 1995-2002 Associate professor, Professor at the Institute of Physics and Technology, National Technical University of Ukraine "KPI", Kyiv, Ukraine
 2004-2013 Senior Scientist at the Bogolyubov's Institute of Theoretical Physics, Ukrainian National Academy of Science (part time)
 1993-1995 Research Associate, Institute for Metal Physics, National Academy of Sciences, Kyiv, Ukraine
 1987-1993 Junior Research Associate, Institute for Metal Physics, National Academy of Sciences, Kyiv, Ukraine
 1985-1987 Engineer, Institute for Metal Physics, National Academy of Sciences, Kyiv, Ukraine

1985 Engineer, Bogolyubov's Institute of Theoretical Physics, Ukrainian National Academy of Science

ADVANCED TRAINING AND STAGES FOR CAREER DEVELOPMENT

2015 Peter Grünberg Institute, Forschungszentrum Jülich, Germany –Advanced Computational methods
 2015 Institute of Physics, Academy of Sciences of the Czech Republic, Prague -- Department of Spintronics and Nanoelectronics
 2013, 2014 Abdus Salam International Centre for Theoretical Physics, Trieste, Italy – Condensed matter physics
 2013 Peter Grünberg Institute, Forschungszentrum Jülich, Germany – Ultrafast magnetic dynamics
 2010 ICQOQI'2010 (International School in Quantum Optics and Quantum Information), Kyiv – Quantum information
 2000, 2001 Max-Planck Institute of microstructure physics, Halle-Saale, Germany – Surface science, magnetism
 2001 XXX International School on the Physics of Semiconducting Compounds, Jaszowiec, Poland – Quantum computers
 2000 ICQO'2000 (International School in Quantum Optics), Belarus' – Quantum information
 1997 Summer School "Women in Science& Engineering", Ames, USA – Leadership, administrative management

RESEARCH EXPERIENCE

Background: Material science (theory): magnetism, magnetoelasticity, properties of multiferroics, magnetic properties of multilayers, transport properties of multilayers. Quantum optics: generalized quantum measurement, noise statistics

Present field of interests: spintronics of antiferromagnets, spin-transport in multilayers (spin laser), topological phenomena in magnetism

TEACHING EXPERIENCE

Original Courses: Quantum Information: Introduction (first in Ukraine, since 2000); Quantum Information Theory (first in Ukraine, since 2008); Physics of Information Processes.

Courses in General Physics (sillabus, labs): a) Newton and Relativistic Mechanics (sillabus, labs); b) Thermodynamics (lectures, sillabus, labs); c) Electricity & Magnetism (lectures, sillabus, labs); d) Optics (sillabus, labs); e) Quantum physics (lectures, sillabus).

Courses in Theoretical Physics: a) Analytic Mechanics and Field Theory (lectures, sillabus); b) Statistical Physics (lectures, sillabus); c) Quantum Mechanics and Statistical Physics (lectures, sillabus).

Special Courses: a) Solid State Physics (lectures); b) Physical Kinetics (lectures, sillabus); c) Statistical Physics and Thermodynamics (lectures, sillabus).

SUPERVISING

Ph.D students Svitlana Kondovich, 2013, at present researcher at University of Picardy, France, Laboratory of Cond. Mat. Physics

Ileugenia Kornienko, 2011, at present Assist. Prof. at National Technical University of Ukraine "KPI"

Ms. Students >30, incl. [Sergii Strelchuk](#), at present at present Post Doc Researcher of Department of Applied Mathematics and Theoretical Physics, University of Cambridge

[Vadim Kluchnikov](#), at present Post Doc Researcher of [Quantum Architectures and Computation Group](#) at Microsoft Research, CA (USA)

Prof. Dr. [Yurii Mokrousov](#), at present Head of Young Investigators Group "Topological Nanoelectronics Group" at Peter Grünberg Institute (PGI-1) and Institute for Advanced Simulation, Jülich, Germany

AWARDS & GRANTS

Since 2018 2015	DFG grant "SHARP: "Spintronics with Antiferromagnets and Phonons" State prize of Ukraine in science and technologies " Functional properties of the bulk and surface ordered systems and fabrication of new metal-containing materials and structures "
Jun 2001	Scholarship: Max-Plank Institute of microstructure physics, Halle-Saale, Germany
Feb 2000	Scholarship: Max-Plank Institute of microstructure physics, Halle-Saale, Germany
1996-2000	Grant: from Polish Committee of Sciences KBN#C/1268/96, "Study of magnetic properties of pure cobalt"
1998	Grant: from the "Renaissance" Foundation (Young teachers programm)
1994, 1995	Grant: from the International Science Foundation (ISF) "Study of martensitic phase transitions with multicomponent order parameter in the framework of Ginsburg-Landau theory"
1992	Grant: from the American Physical Society (APS)
Since 1996 (every 2-3 years)	Grants from Ministry of Science & Education of Ukraine (project leader), topics covering dynamics and spintronics of antiferromagnets and multiferroics

SKILLS & ACTIVITIES

Skills	Condensed Matter Physics, Phenomenology, Magnetism, Spintronics, Multiferroics, Quantum Information Science, Matlab, Mathcad, LaTeX,
Languages	English (fluent), French (read/speak), German (read/understand), Ukrainian (native), Russian (native)
Scientific Memberships	Reviewer in APS journals (PRB, PRL), Nature group, JMMM

STATISTICS (ISI web of knowledge, core collection)

H-index	16
Total citations	1008
Total publications	90