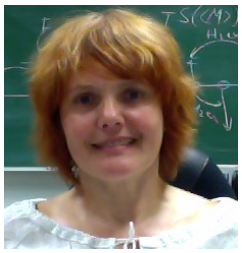
Curriculum Vitae — Olena Gomonay



PERSONAL INFORMATION

Olena V. Gomonay, Prof.

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https://www.researchgate.net/profile/Helen_Gomonay
Senior Researcher

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”

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	Senior Scientist 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”, Kiev, Ukraine
1995-2002	Associate professor, Professor at the Institute of Physics and Technology, National Technical University of Ukraine “KPI”, Kiev, 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, Kiev, Ukraine
1987-1993	Junior Research Associate, Institute for Metal Physics, National Academy of Sciences, Kiev, Ukraine
1985-1987	Engineer, Institute for Metal Physics, National Academy of Sciences, Kiev, Ukraine
1985	Engineer, Bogolyubov's Institute of Theoretical Physics, Ukrainian National Academy of Science

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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-Plank 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

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

Present field of interests: spintronics of antiferromagnets, spin-transport in multylayers (spin laser), quantum computer (hardware)

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, Julich, Germany

AWARDS & GRANTS

2015	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 "Reneissance" Foundation (Young teachers programm)
1994, 1995	Grant: from the International Science Foundation (ISF)
	"Study of martensitic phase transitions with multycomponent 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 Minitstry of Science & Education of Ukraine (project leader), topics covering dynamics and spintronics of antiferromagnets and multiferroics

SCIENTIFIC ACTIVITY (CONFERENCES)

EMRS-2014 (Warsaw, Poland); International conference "Functional materials - 2013" (Crimea, Ukraine); International conference "Functional materials - 2011" (Crimea, Ukraine); Moscow International Symposium on Magnetism, 2011 (Moscow, Russia); XIII International Conference on Quantum Optics & Quantum Information, 2010 (Ukraine, Kyiv); MPMNS'2010, 2010 (Ukraine, Donetsk); ICFM'09, 2009 (Ukraine, Partenit); CC-2008, 2008 (Poland, Wroclaw); SPINSWITCH-2008, 2008, (Poland, Krakov); ICFM'07, 2007 (Ukraine, Partenit); CC-2006, 2006 (Ukraine, Kharkiv); ICFM'05, 2005 (Ukraine, Partenit); StatPhys'05, 2005 (Ukraine, L'viv); "Actual Problem of Theoretical Physics", 2002 (Ukraine, Kyiv); JEMS'01, 2001 (France, Grenoble); XXX International School on the Physics of Semiconducting Compounds, Jaszowiec 2001 (Ustron-Jaszowiec, Poland, June 1-8, 2001); EMMA'2000 2000 (Ukraine, Kiev); ICQO'2000 (Belarus', Minsk) EPS-11, 1999 (UK, London), Physics of magnetism'99 1999 (Poland, Poznan), EMMA'98 1998 (Spain, Zaragoza), ICM'7 1995 (The Netherlands), SSPFA'94, 1994 (Ukraine), EMMA'93 1993 (Slovakia), ICM'93 1993 (Switzerland).

SKILLS & ACTIVITIES

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

STATISTICS

ORCID 0000-0002-9413-0337

Papers	56
Manuals	14
Citing Articles	428
Average citation	7.64
h- index	11