



Volodymyr Kravchuk

Curriculum Vitae

Affiliation [Bogolyubov Institute for Theoretical Physics](#)
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APPOINTMENTS

Senior Researcher Spring 2013

Bogolyubov Institute for Theoretical Physics

- Research on curvilinear effects in low-dimensional ferromagnetic systems.

Researcher 2010-2013

Bogolyubov Institute for Theoretical Physics

- Research on periodical magnetization structures (vortex-antivortex crystals, cross-tie domain walls, etc.) induced by spin-polarized current in ferromagnetic films and wires.

Junior Researcher 2008-2010

Bogolyubov Institute for Theoretical Physics

- Research on switching phenomena in vortex state nanomagnets.

EDUCATION

PhD (Cand. Sci.) in Theoretical Physics 2005-2009

Taras Shevchenko National University of Kyiv;

Bogolyubov Institute for Theoretical Physics

“Vortex states of magnetic nanodots” Thesis advisor: [Prof. Dr. Denis Sheka](#)

Master Diploma in Physics 1999-2005

Taras Shevchenko National University of Kyiv, Faculty of radiophysics;

Universität Konstanz, Fachbereich Physik

Academic/Research advisors: Dr. V.V. Kisliyk and Prof. Dr. U. Rüdiger

Secondary school 1996-1999

Ukrainian Physical and Mathematical Lyceum of Taras Shevchenko University of Kiev

Finished with honors (gold medal)

SELECTED PEER-REVIEWED PUBLICATIONS

1. O. Pylypovskyi, [V. Kravchuk](#), D. Sheka, D. Makarov, O. Schmidt, Yu. Gaididei, “Coupling of Chiralities in Spin and Physical Spaces: The Möbius Ring as a Case Study”, *Phys. Rev. Lett.* **114**, 197204 (2015).
2. Yu. Gaididei, [V. Kravchuk](#) and D. Sheka, “Curvature Effects in Thin Magnetic Shells”, *Phys. Rev. Lett.* **112**, 257203 (2014).

3. [V. Kravchuk](#), “[Influence of Dzialoshinskii–Moriya interaction on static and dynamic properties of a transverse domain wall](#)”, *J. Magn. Magn. Mater.* **367**, 9 (2014).
4. [V. Kravchuk](#), D. Sheka, R. Streubel, D. Makarov, O. Schmidt, Yu. Gaididei, “[Out-of-surface vortices in spherical shells](#)”, *Phys. Rev. B* **85**, 144433 (2012).
5. [V. Kravchuk](#), D. Sheka, Yu. Gaididei, F. Mertens, “[Controlled vortex core switching in a magnetic nanodisk by a rotating field](#)”, *J. Appl. Phys.* **102**, 043908 (2007).

INVITED TALKS AT INTERNATIONAL CONFERENCES

1. International Young Scientists Forum on Applied Physics, Dnipropetrovsk (Ukraine), 29 Sep – 2 Oct/2015
2. Conference “Functional Magnetic Nanomembrains”, Bad Honnef (Germany), 4-6/March/2013

SYNERGISTIC ACTIVITIES

- Referee: Applied Physics Letters, Journal of Applied Physics, Physical Review Applied, Physical Review B, Physical Review Letters, Journal of Physics D: Applied Physics, Nanotechnology, SPIN.
- Head of organizing committee of V-VI Young scientists conferences “Problems of Theoretical Physics” Kiev, December 24-27, 2013; November 25-27, 2014.

TEACHING

Taras Shevchenko National University of Kyiv (Assistant)

- 2007-2008 “Quantum mechanics” (practical classes)
- 2007-2008 “Numerical Methods” (practical classes)
- 2011 “Selected chapters of higher mathematics” (lectures and practical classes)
- 2011 “Theoretical physics” (lectures and practical classes)
- 2011 “Modern magnetism” (practical classes)

AWARDS

- 2015 Humboldt Research Fellowship for Experienced Researchers.
- 2014 Scholarship of President of Ukraine for young scientists.
- 2014 Grant for young scientists of National Academy of Sciences of Ukraine.
- 2013 Grant of President of Ukraine for young scientists.
- 2013 DAAD scholarship “Forschungsaufenthalte für Hochschullehrer und Wissenschaftler”
- 2009 Scholarship of President of Ukraine for young scientists.
- 2008 BAYHOST scholarship (Bayreuth Universität)
- 2006 BAYHOST scholarship (Bayreuth Universität)