

Alexey Rudenko

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Education

- 2003 **Master degree in applied mathematics**, *National Technical University of Ukraine "Kyiv Politechnical Institute", Institute of Physics and Technology*, Kyiv, Ukraine.
- 2009 **PhD degree in probability theory and mathematical statistics**, *Institute of mathematics of National Academy of Sciences of Ukraine*, Kyiv, Ukraine.

PhD thesis

title *Local times of self-intersection for Gaussian random fields and renormalization*
supervisor Prof. A.A.Dorogovtsev

Experience

- 2003–2005 **Software engineer**, Kyiv, Ukraine.
Implementation of numerical computations
- 2003–2007 **PhD student**, *Institute of mathematics*, Kyiv, Ukraine.
Preparing PhD thesis in the Department of Theory of Stochastic Processes
- 2007–now **junior researcher, researcher**, *Institute of mathematics*, Kyiv, Ukraine.
Working in the Department of Theory of Stochastic Processes

Languages

Russian **First language**
Ukrainian **Fluent**
English **Fluent**

Scientific Interests

- Local times The construction of local times for stochastic processes, the renormalization of local times
- Stochastic differential equations The existence and properties of solutions of stochastic differential equations

Participation

- 2003- Member of the jury of written mathematical contest for 8-10 grade students at Kyiv International Mathematical Festival
- 2009- Member of the Editorial board of the journal Theory of Stochastic Processes
- 2013- Member of the council of young researchers of Institute of mathematics of National Academy of Sciences of Ukraine

Conferences

- 2005 Modern problems and new trends in probability theory, Chernivtsi, Ukraine
- 2006 9th Vilnius conference on probability theory and mathematical statistics, Vilnius, Lithuania
- 2007 Skorokhod space. 50 years on, Kyiv, Ukraine
- 2009 Stochastic Analysis and Random Dynamical Systems, Kyiv, Ukraine
- 2010 10-th International Vilnius Conference on Probability and Mathematical Statistics, Vilnius, Lithuania
- 2012 Modern Stochastics: Theory and Applications III, Kyiv, Ukraine
- 2014 11-th International Vilnius Conference on Probability and Mathematical Statistics, Vilnius, Lithuania

Publications

A. V. Rudenko. On a property of singular measures. In *Mathematics today '01 (Russian)*, volume 12 of *Mat. Segodnya*, pages 118–123. Nauk.-Metod. Tsent. Vishch. Osv., Kiev, 2001.

A. V. Rudenko. Approximation of densities of absolutely continuous components of measures in a Hilbert space by the Ornstein-Uhlenbeck semigroup. *Ukrain. Mat. Zh.*, 56(12):1654–1664, 2004.

Alexey Rudenko. Existence of generalized local times for Gaussian random fields. *Theory Stoch. Process.*, 12(28)(1-2):142–153, 2006.

Alexey V. Rudenko. Local time as an element of the Sobolev space. *Theory Stoch. Process.*, 13(29)(3):65–79, 2007.

Oleksiy Rudenko. Ito-Wiener expansion and properties of local time for Gaussian random field (in Ukrainian). *Mathematical Bulletin of the Shevchenko Scientific Society*, 5:183–201, 2008.

Alexey Rudenko. Local time for Gaussian processes as an element of Sobolev space. *Commun. Stoch. Anal.*, 3(2):223–247, 2009.

Alexey Rudenko. Some properties of the Ito-Wiener expansion of the solution of a stochastic differential equation and local times. *Stochastic Processes and their Applications*, 122(6):2454 – 2479, 2012.

A. Rudenko. Some uniform estimates for the transition density of a Brownian motion on a Carnot group and their application to local times. *Theory of Stoch. Proc.*, 19(35)(1):62–90, 2014.