Vadim Nemytov

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Education

M.Sc. + Ph.D. Theory and Simulation of Materials, Imperial College London,	2013 – Dec. 2017.
M.Sc. Condensed Matter Theory and Modelling, McGill University,	2012.
B.Sc. Joint Honours in Mathematics & Physics; 3.72/4.0 GPA (UK 1st class), McGill University,	2011.
Highschool Diploma, Northview Heights; average 88/100 (UK A*A*A*), Canada,	2007.

Computational Tools

Experienced: Python, Fortran, Linux, Bash scripting, Git, HPC[1], AWS, Mathematica, Matlab, OpenMP.

Some experience: C++, Java.

Experience

Ph.D. project   Imperial College London   Oct. 2014 – Dec. 2017

- Proposed a mathematical generalization of my supervisor's model, implemented and tested it in Fortran and successfully used for new applications.
- Parametrized models by minimizing an error function defined on large sets of reference data
- Proposed, implemented $O(2)$ faster method of finding self-consistent solution during model fitting
- Critically assessed relevant literature, proposed a hypothesis explaining model behavior
- Implemented OpenMP parallelization in Fortran.

M.Sc. project   Imperial College London   Oct. 2013 – Sep. 2014

- Implemented a module in C++ and integrated it (via git) as part of a group software project

Outreach Postgraduate Ambassador   Wohl Reachout Lab, Imperial   Oct. 2014 – Dec. 2017

- Designed and delivered day-long workshops for students aged 14 - 17 on a set topic; these consisted of talks, demonstrations, visualizations, exercises and hands-on labs
- Developed workshop material for and trained newly qualified Outreach Ambassadors

Materials model developer, Researcher   Materials Design s.a.r.l. Internship, Paris   Sep. 2016 – Dec. 2016

- Achieved set task of parametrizing a pair-additive model for NaCl, novel in its ability to reproduce *both* the solid and the molten states. Integrated it into company's proprietary MedeA software.

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[1]High Performance Computer

Funding team leader, **School co-organizer**	Hermes Summer School 2016 Materials Modelling & Sci. Comm.	Oct. 2014 – Dec. 2017

- Led Funding team, raising £10730, balancing £25900 budget, with a surplus enabling 5 fully-funded scholarships for attendees from developing countries
- Co-designed summer school deciding on topic structure, series of communication workshops and individual and group tasks.

M.Sc. Project	McGill University	June 2011 – Jan. 2012

- Produced a written review of the theory of a recently discovered phase called Topological Insulator
- Implemented a model in Matlab which reproduced the Bi_2Se_3 Topological Insulator
- Formed a hypothesis that Cd3As2 is a new Topological Insulator; confirmed two years later[2].

Visiting Researcher	University of Hong Kong	Oct. 2011 – Dec. 2011

- Extended a Finite Differences Matlab code to simulate quantum transport of electrons in Bi_2Se_3

Sales and Marketing Analyst	XLN Telecom, London	Mar. 2007 – Aug. 2007, May 2008 – Aug. 2008

- Developed the metrics to monitor and analyze quality and performance of the Sales team
- Analyzed call recordings, selected cases for the staff training and team enhancement purposes
- As a Sales manager assistant, prepared daily and weekly reports on various team related metrics

Awards

Rubin Gruber Scholarship (1,000 $), McGill University

Jeffery Scholarship in Science (2,000 $), McGill University

J.W. McGonnel Award (1,000 $), McGill University

Golden Key International Honours Society – membership by invitation

Best Student in Computer Science Award, Northview Heights Secondary School, 2006

Personal

Born on April 4, 1988. Lithuanian (EU) Citizen, resident ($\sim$ 5 years) in UK.

Languages: English, Russian, Lithuanian; Beginner's French.

Interests: Football; indoor bouldering; dancing swing, improvised; reading Fiction, Economics, Philosophy, History, Mathematics; discovering own city by bike, country by visiting cities; real pubs

Last updated: August 18, 2017

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[2]Nature Materials 13, 677 - 681 (2014)