

Dr. habil. Sergei Sharapov

Bogolyubov Institute for Theoretical Physics
Metrologichna Str. 14-b

Room 330

version: September 2018

sharapov@bitp.kiev.ua, sergei.sharapov@gmail.com
<http://sites.google.com/site/sergeisharapov/>
<http://www.researcherid.com/rid/A-3526-2008>

- PRESENT POSITION**
- ◇ **December 2011 – on Bogolyubov Institute for Theoretical Physics of the National Academy of Sciences of Ukraine**
Head of the laboratory of Strongly Correlated Low-dimensional Systems
- WORK EXPERIENCE IN UKRAINE**
- ◇ Bogolyubov Institute for Theoretical Physics of the National Academy of Sciences of Ukraine
 - ◇ December 2010 – November 2011: Leading Researcher
 - ◇ June 2008 – November 2010: Senior Research Associate
 - ◇ September 2004 – December 2004, May 2000 – October 2002: Research Associate
 - ◇ March 1996 – April 2000: Junior Research Associate
- POSITIONS**
- ◇ **August 2007 – May 2008 Department of Physics, Western Illinois University**
Assistant Professor (nontenured)
- POSTDOC EXPERIENCE**
- ◇ **January 2005 – June 2007 Department of Physics, McMaster University, Hamilton, Canada**
Postdoctoral Fellow
 - ◇ **October 2003 – September 2004 Istituto Nazionale per la Fisica della Materia (INFN)** (INFN fellowship in the frameworks of the project *Transport and interference in nano-devices* in Torino, Italy) Institute for Scientific Interchange, Torino, Italy
 - ◇ **October 2000 – September 2003 Institute of Physics, University of Neuchâtel, Switzerland**
Senior Scientist (Maître-assistant)
 - ◇ **June 1997 – May 1998, September 1998 – August 1999 Department of Physics, University of Pretoria, South Africa**
Postdoctoral Research Fellow
- CURRENT TEACHING**
- ◇ **2010 – 2018 National Taras Shevchenko University of Kyiv, Lecturer in *Methods of quantum Field Theory in Condensed Matter Physics (Introduction to graphene)*** (5-th, 6-th year)
 - ◇ **2011 – 2013 National Taras Shevchenko University of Kyiv, Lecturer in *Theory of superconductivity*** (4th year)
- EDUCATION**
- ◇ **2010 Bogolyubov Institute for Theoretical Physics of the National Academy of Sciences of Ukraine** Doctor habilitus (Doctor of Science) in Theoretical Physics
Thesis (publicly defended on 17 June 2010): *Electronic properties of the systems with the Dirac-like energetic spectrum: graphene and high-temperature superconductors*
<http://bitp.kiev.ua/en/thesis/2010.html>
 - ◇ **1992-1995 Bogolyubov Institute for Theoretical Physics of the National Academy of Sciences of Ukraine**
Ph.D. (Candidate of Science) in Theoretical Physics
Thesis (publicly defended on 4 July 1996): *Two-dimensional and Quasi two-dimensional models of superconductivity with arbitrary carrier density*
Supervisors: Profs. V.M. Loktev and P.I. Fomin

- ◇ **1987-1992 National Taras Shevchenko University of Kyiv**
Diploma [M.Sc. Honours] in Theoretical Nuclear Physics
(specialization: theory of nucleus and quantum field theory)
Major Subjects: Physics and Mathematics Internship: high-school teaching
Master's Thesis: *Problem of inducing of non-abelian gauge fields*
Supervisor: Prof. P.I. Fomin
- ◇ **1987** Graduated from Physics and Mathematics High School N 145, Kiev

POSTGRADUATE V.O. Shubnyi, National Taras Shevchenko University of Kyiv

STUDENTS

SUPERVISED V.Yu. Tsaran, National Taras Shevchenko University of Kyiv

GRADUATE Title of the project: *Landau levels in buckled Dirac materials*

STUDENTS

SUPERVISED In 2009 – 2012, 4 students from National Taras Shevchenko University of Kyiv

RESEARCH ◇ **Dirac materials (graphene, silicene, etc.)**, their electrical, thermoelectrical, optical
INTERESTS transport properties, in particular in an applied magnetic field

◇ **High-temperature superconductivity**: nodal quasiparticle excitations and their behavior in the vortex state; pseudogap phenomenon; optical conductivity and sum rule

◇ Methods of quantum field theory in strongly correlated matter

PUBLICATIONS ◇ 1 textbooks and monographs; 4 reviews in refereed journals; **69** papers published in refereed journals, among them **3** in Physical Review Letters; **46** conference proceedings & abstracts

My “h-index” is now 25. My best paper is on the quantum Hall effect in graphene published in Physical Review Letters (2005) has already 924 citations in ISI citation database. Overall 12 papers cited more than 100 times. My total ISI citation index is $\gtrsim 4108$.

See almost complete list of publications and their citation index in

<http://www.researcherid.com/rid/A-3526-2008>.

PROFESSIONAL I am a referee for Nature Physics, Physical Review Letters, and Physical Review B. I have
ACTIVITIES also done referee work for Reviews of Modern Physics, Europhysics Letters, Physical Review D, European Physical Journal B, Journal of Physics: Condensed Matter, JETP Letters, J. Low Temperature Physics, Proceedings of the Royal Society A, Diamond and Related Materials and Photonics and Nanostructures - Fundamentals and Applications.

◇ member of the EuroGRAPHENE (EUROCORES Programme) Review Panel, the European Science Foundation (ESF).

The Associate Editor of the Condensed Matter Physics, Lviv.

◇ Book Proposal Review for CRC Press, Taylor & Francis Books

◇ Grant reviewer: the National Science Foundation (NSF) USA; the Netherlands Foundation for Fundamental Research on Matter, FOM; National Science Centre (Narodowe Centrum Nauki - NCN) Poland

AWARDS ◇ The leader of Science of Ukraine 2016. Web of Science award. Ukrainian scientist. For significant advances. Physics.

◇ The 2012 Ukrainian Grant of the President of Ukraine for Dr. habil. (together with E.V. Gorbar).

◇ The 2011 Ukrainian State Prize in Science and Technology

◇ 1998 The Annual Prize of the National Academy of Sciences of Ukraine for the best results obtained by young scientists

◇ 1988-1992 Special University Scholarship – National Taras Shevchenko University of Kyiv

LANGUAGES ◇ Bilingual: Russian, Ukrainian

◇ Fluently spoken/written: English; French - intermediate level