

Curriculum Vitae

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- Education:** **1982:** Doctor of Sciences, Phys. & Math. from Moscow State University;
 1975: Ph.D., Supervisor Prof. Ilya Lifshitz, from Inst. for Phys. Problems;
 1972: M.Sc. from Moscow State University.
- Employment:** New York University: **2008 -:** Professor of Physics and Mathematics
 University of Minnesota: **1999-2008:** Professor of Physics.
 MIT, Department of Physics: **1993-99:** Visiting scientist.
 Moscow Physical-Technical Institute: **1989-93:** Professor of Biophysics.
 Institute of Chemical Physics, Russian Ac. Sci.: **1972-99:** from Young Researcher to Head of Sector.
- Honors:** USSR Prize in Physics for Young Scientists, 1982;
 Fellow, American Physical Society, 2003;
 Fellow, Institute of Physics, London, 2004;
 Humboldt Award for Senior US scientists, 2006;
 American Physical Society Outstanding Referee, 2008.
- Research:** Theoretical physics of biopolymers (DNA and protein folding and evolution,
 heteropolymers, phase transitions, knots, statistics of DNA
 and protein sequences, etc.).
 Theory of polymers (phase transitions, polymer networks,
 polyelectrolytes and polyampholytes, liquid-crystalline ordering, etc.).
 Related general questions of biophysics and statistical physics (neural networks,
 prebiotic evolution, etc.).
- Papers:** ~ 200 scientific publications, 15 reviews.
- Talks:** ~ 50 invited talks at conferences, seminars, and colloquia in the last 5 years.
- Books:** • *Statistical Physics of Macromolecules* – Moscow, Nauka, 1989 (*in Russian*)
 – New York, AIP Press, 1994
 • *Physics in the World of Polymers* – Moscow, Nauka, 1989 (*in Russian*)
 • *Giant Molecules: here, there, and everywhere...* – Academic Press, 1997
 • Editor: *I.M. Lifshitz and Cond. Matter Theory* – Phys. Reports, v. 288, Elsevier, 1997.
 • Editor: *Theor. & Math. Models in Polym. Res.* – Academic Press, 1998.
 • *Lectures on Disordered Polymers* – University of Lausanne, 1997.

Students:

A. Zhestkov	PhD 1980	Professor, Physics, Chelyabinsk University, Russia.
E. Shakhnovich	PhD 1981	Professor, Chemistry, Harvard University.
S. Nechaev	PhD 1987	CR1, Institute de Physique Nucleaire, Orsay, France.
D. Kuznetsov	PhD 1987	Vice-President, Intellidyn, Boston, MA
E. Kaganova	PhD 1989	Massachusetts General Hospital, Boston, MA.
D. Pakhomov	PhD 1989	Research manager, Pharmaceutical Company, Moscow.
I. Gabashvili	PhD 1991	Ingenuity Systems; Adjunct Professor, San Jose State University
N. Khroustova	PhD 1994	Leading Researcher, Inst. Biochemical Physics, Moscow.
V. Pande	PhD 1995	Associate Professor, Chemistry, Stanford.
R. Du	PhD 1999	(+ MD 2000) Faculty, Brigham&Women's Hospital, Harvard Medical School.
J. Chuang	PhD 2002	Assistant Professor, Biology, Boston College.
R. Lua	PhD 2005	NIST Researcher.
N. Moore	PhD 2006	Assistant Professor of Physics, Winona State University, Minnesota.
Longhua Hu	PhD 2007	Postdoctoral fellow, University of North Caroline.

Service:

- *Journal of Physics A: Math. & Gen.*, Editorial Board member
- *Physica A*, associate editor
- *Co-organized meetings* “Coulomb Effects in Biological Physics” (Minneapolis, 2001),
“Biological Physics” (Aspen, 2002),
“Coulomb Effects in Chemical and Biological Physics” (Minneapolis, 2004),
“Physics Inspired by Biology” (Aspen, 2006),
“Physics Ideas Inspired by Biological Systems” (Minneapolis, 2007).
- Referee in much more journals and grant agencies than I would ever want

Teaching:

- “*Mathematical Methods in Physics*” (2000, 2001, 2003, 2004)
- “*Introduction to Solid State Physics*” (2001, 2002)
- “*Introduction to Biopolymer Physics*” (2002, 2003, 2005, 2006)
- “*Introductory Physics for Life Sciences*” (2004, 2005, 2006)
- “*Biological Physics of Macroscopic Systems*” (2007)
- “*Single Molecule Biological Physics*” (2008)

Personal:

Date and place of birth: February 2, 1949; Moscow, USSR.
Marital status: Married, two children.