



### **Berloff Natalia, PhD**

Professor, Director of Photonics and Quantum Materials Program, Skoltech

Professor of Applied Mathematics, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, UK

**Research interests:** nonlinear waves, quantum fluids, superfluid turbulence, coherence in non-equilibrium quantum systems: Bose Condensation of excitons and polaritons, magnons, atomic gases, superfluid helium, strong light-matter coupling in solid-state and atomic systems and driven quantum systems.

#### **Education:**

- 1991 Bachelor Diploma in Computational Mathematics and Cybernetics. Department of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Russia
- 1992 Master Diploma in Computational Mathematics and Cybernetics. Department of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Russia
- 1997 Doctor of Philosophy (PhD). Department of Mathematics, Florida State University, USA.  
Thesis title – “Solitary and Periodic Waves in Nonlinear Nonintegrable Systems”

#### **Work experience:**

- 1997 – 1999 Postdoctoral fellow, Department of Mathematics, University of California, Los Angeles, USA
- 1999 – 2002 Assistant Professor, Department of Mathematics, University of California, Los Angeles, USA
- 2002 – present Lecturer, Reader, then Full Professor, Director of Quantum Fluids Laboratory, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, UK. (on leave 2013-2016)
- 2002 – present Fellow of Jesus College, Director of Studies in Mathematics, University of Cambridge, UK. (on leave 2013-2016)
- 2013 – 2015 Professor, Associate Dean then Dean of Faculty, Skolkovo institute of science and technology, Russia.
- 2015 – present Professor, Director of Photonics and Quantum Materials Program, Skolkovo institute of science and technology, Russia.

#### **Research achievements and activities:**

##### **Conferences organization:**

- **Chairman** of the International Conference on Nonlinear phenomena in degenerate

quantum gases;

- **Co-chair** of the Conference on Hybrid Photonics and Nanomaterials;
- **Board Member** of the International Conferences on Low Temperature Physics, International Conferences on Quantum Fluids and Solids, International Conference on Strongly Correlated Electron Systems, International Conference on Relaxation, Turbulence, and Non-Equilibrium Dynamics of Matter Fields.

**Invited (keynote) speaker** at more than 60 international conferences and workshops.

**Publications:** more than **70 scientific papers** in peer reviewed journals (including Nature Journals, PRLs, PNAS), **five book chapters**, several **topical reviews**;

**Awards:**

- Dwight B. Goodner Fellowship (1995-1996);
- President's Postdoctoral Fellowship (1997-1999);
- NIH/NHGRI Career Development Award (2001-2006);
- Pilkington Prize (2005);
- Quantum Fluid Lecturer at the 2008 International Congress of Theoretical and Applied Mechanics, Adelaide, Australia.

**Grants:** from NSF, NIH, NHGRI, EPSRC, ERC, Isaak Newton Trust.

**Referee** for over 20 journals including Science, Nature Journals, Physical Reviews, Journal of Physics, Physics Letters, Journal of Fluid Mechanics, Journal of Computational Physics.