

## CURRICULUM VITAE OF EGOR V. LYCHAGIN

**Egor Valerievich Lychagin**, Candidate of Sciences (PhD, Phys. and Math).

**Institution:** Joint Institute for Nuclear Research, Frank Laboratory of Neutron Physics (FLNP)

Phone: +7 49621 63685

Fax: +7 49621 65429

E-mail: lychag@nf.jinr.ru

**Born:** 17 July 1973, Dimitrovgrad, Ulyanovsk Region, USSR

### **Education:**

1990 – 1996 Moscow Engineering Physics Institute (MEPhI), Department of Experimental and Theoretical Physics

2008 – PhD “Experimental study of ultracold neutrons (UCN) inelastic scattering with small energy transfer ( $\sim 1 \cdot 10^{-7}$  eV) in interaction with the solid state surface in a gravitational spectrometer”, JINR

### **Professional activity:**

1996 – 2013 Junior Researcher, Researcher, Head of Research Group, Head of FLNP Sector

2013 – Deputy Director of FLNP

### **Other activities:**

Since 2013 Member of the Editorial Board of the PEPAN journal

Since 2012 Scientific Secretary of the International Seminar on Interaction Neutron with Neutrons (ISINN)

### **Research interests:**

- Physics of cold and ultracold neutrons
- Neutron properties

### **Scientific publications and awards:**

- Co-author of more than 60 publications
- JINR awards: 2006, 2009.
- FLNP awards: 2002, 2016.
- I.M. Frank scholarship 2002.
- F.L. Shapiro scholarship 2006.

## LIST OF SELECTED PUBLICATIONS BY E.V. LYCHAGIN

(2013–2018)

1. **E.V. Lychagin**, A.Yu. Muzychka, V.V. Nesvizhevsky "Nano-Structured Reflectors for Slow Neutrons" in *New Developments in Low-Energy Physics Research* **Editors:** Tao Zoeng and Meng Ngai NOVA Publishers 2013
2. В. В. Несвижевский, А. Ю. Воронин, А. Ламбрехт, С. Рейно, **Е. В. Лычагин**, А. Ю. Муzychka, А. В. Стрелков "Наблюдение квантовой левитации наночастиц методом ультрахолодных нейтронов" // *Кристаллография*, 2013, том 58, № 5, с. 730–736  
  
V. V. Nesvizhevsky, A. Yu. Voronin, A. Lambrecht, S. Reynaud, **E. V. Lychagin**, A. Yu. Muzychka, and A. V. Strelkov "Quantum Levitation of Nanoparticles Seen with Ultracold Neutrons" *Crystallography Reports*, 2013, Vol. 58, No. 5, pp. 743–748.
3. **E.V. Lychagin**, A.Yu. Muzychka, G.V. Nekhaev, V.V. Nesvizhevsky, E.I. Sharapov and A.V. Strelkov "Helium UCN source at the extracted beam of thermal neutrons" // *Neutron Spectroscopy, Nuclear Structure, Related Topics; ISINN-22 Dubna May 27-30, 2014, JINR Report E3-2015-13*, pp.38-50
4. **E.V. Lychagin**, A.Yu. Muzychka, G.V. Nekhaev, V.V. Nesvizhevsky, E.I. Sharapov and A.V. Strelkov "UCN Source at an External Beam of Thermal Neutrons" // *Hindawi Publishing Corporation Advances in High Energy Physics Volume 2015, Article ID 547620, 7 pages* <http://dx.doi.org/10.1155/2015/547620>
5. **E.V. Lychagin**, V.A. Mityukhlyayev, A.Yu. Muzychka, G.V. Nekhaev, V.V. Nesvizhevsky, M.S. Onegin, E.I. Sharapov, and A.V. Strelkov, "UCN sources at external beams of thermal neutrons. An example of PIK reactor," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 823, pp. 47–55, 2016.
6. **Е. В. Лычагин**, Д. П. Козленко, П. В. Седышев, В. Н. Швецов, "Нейтронная физика в ОИЯИ — 60 лет Лаборатории нейтронной физики им. И.М. Франка", *УФН*, **186:3** (2016), 265–274
7. V.V. Nesvizhevsky, A.Yu. Voronin, A. Lambrecht, S. Reynaud, **E.V. Lychagin**, A.Yu. Muzychka, G.V. Nekhaev, A.V. Strelkov, "The method of UCN "small heating" measurement in the big gravitational spectrometer (BGS) and studies of this effect on Fomblin oil Y-HVAC 18/8" // *Review of Scientific Instruments*, **89** (2), (2018) 023501
8. V. V. Nesvizhevsky, M. Dubois, Ph. Gutfreund, **E. V. Lychagin**, A. Yu. Nezvanov, and K. N. Zhernenkov, " Effect of nanodiamond fluorination on the efficiency of quasispecular reflection of cold neutrons", *Phys. Rev. A* **97**, 023629 – Published 21 February 2018