

Vitalii Balakin

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Education

Novosibirsk State University:

- Accelerator Physics Department
Bachelor's degree in Physics (2012 - 2016)
- Accelerator Physics Department
Master's degree in Physics (2016 - 2018)

Budker Institute of Nuclear Physics PhD program, accelerator department (2018 – current time)

Employment

Budker Institute of Nuclear Physics:
Senior Research Assistant (09/2014 – current time)

Duties:

- Accelerator tuning and operating
- Beam diagnostic
- Software development
- Development of the scintillating screen in CR project (FAIR)

Personal profile

A highly motivated, hard-working accelerator physics PhD student with an excellent academic track record and 5 years work experience. I am continuously impressed by accelerators, by its complicated architecture and control system. For me it is a symbiosis of high-frequency technics and fundamental science at its highest. I have always worked with enthusiasm in this field of science.

Key skills and abilities

- Experience in beam collective effects and impedances

- Advanced knowledge of diagnostics devices (dissector, streak camera, CCD-matrix, etc.)
- Experience in operating accelerator control systems
- Experience in designing of optical beam diagnostic systems
- Frontend software development (Python 2.7, 3 using Qt 4.8, 5, numpy, scipy, etc.)
- Upper-intermediate in English

Theses and Publications

15 publications, among them:

- Master thesis “Research of longitudinal beam distribution into Damping ring of Injection Complex VEPP-5 with 1st harmonic cavity”
- V.V. Balakin et al. “Longitudinal Beam Measurements on Damping Ring BINP’s Injection Complex with New Resonator”, in Proc. RuPAC’18.
- O. I. Meshkov et al. “On the efficiency of particle injection into Damping ring of Budker Institute of Nuclear Physics”, Physics of Particles and Nuclei Letters
- F.A. Emanov et al. “Upgrade of Application-Level Software of VEPP-5 Injection Complex”, in Proc. RuPAC’18.
- F. Emanov et al. “Status and prospects of VEPP-5 Injection Complex”, RuPAC’18.

Grants

One of the winners of “Eighth FRRC Contest among young scientists” and “Ninth FRRC Contest among young scientists”.

3rd place in Budker Institute of Nuclear Physics young scientist contest in 2018