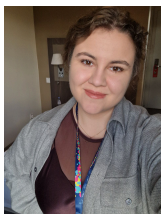


Daria Borodulina

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Education:

- 2024 - now PhD in Physics - defense planned for autumn 2027
**Laboratoire de Physique des 2 infinis de Bordeaux (CNRS)/ University of Bordeaux
Bordeaux, France**
- 2022 - 2024 MSc in Physics
**Eidgenössische Technische Hochschule (ETH)
Zürich, Switzerland**
- 2018 - 2022 BSc in Applied Mathematics and Physics
**Moscow Institute of Physics and Technology (MIPT)
Moscow, Russia**
Department "Fundamental Interactions and Particle Physics"

Research experience:

- 2024 - now **PhD Thesis (LP2i Bordeaux (IN2P3/CNRS), France)**
Working for DUNE collaboration.
"Neutrino energy reconstruction with the vertical drift detector for the DUNE experiment"
Supervisor: Dr. Anselmo Mereaglia
- 2023-2024 **Master's Thesis (ETH Zurich, Switzerland)**
"Characterization of a novel 3D optically-segmented scintillator-based neutrino detector"
Supervisor: Prof.Dr. Davide Sgalaberna
- 2022-2023 **Semester projects (ETH Zurich, Switzerland)**
"Optical simulations of a segmented Water-based Liquid Scintillator detector"
"Kinematic characterization of fast neutron in final state"
Supervisor: Prof.Dr. Davide Sgalaberna
- 2021-2022 **Bachelor's Thesis (MIPT, Moscow, Russia)**
"Study of the linearity of the photomultiplier tubes at the DANSS detector"
Supervisor Dr. Igor Alekseev
- 2020-2022 **Projects (Institute for Theoretical and Experimental Physics, Moscow, Russia)**
Lab assistant. Working for DANSS collaboration.
"Photomultiplier tubes linearity in DANSS experiment"
"Neutron background estimation in the room of DANSS experiment"
Supervisors: Prof. Dr. Mikhail Danilov, Dr. Igor Alekseev and Dr. Dmitry Svirida

Publications:

- 2025 **"A 3D segmented Water-based Liquid Scintillator for high-precision detection of neutrinos in water"** B.Li, D.Borodulina, D.Sgalaberna et al.
[2026 JINST 21 P01012](#)

Skills:

- Languages English (C1, 7.5 IELTS 2021), German (B2), French (B1), Russian (native)
- Computer skills C++, Python, ROOT, Geant4

Trainings:

- 2025 4th PhD Summer School on Neutrinos, NBI, Copenhagen, Denmark
- 2025 DUNE LArTPC Software and Analysis workshop, CERN
- 2021 CERN Summer Student Programme
Project: "Studying Semi-Visible jets with Machine Learning methods"
Supervisor: Dr. Deepak Kar