# Pavel Kislitsyn

26 y.o. researcher, Saint-Petersburg • hh resume Github Telegram



2021 - 2023

#### Education

**loffe Institute** Saint-Petersburg, Russia

Ph.D. student 2023 - present

Specialization in Cosmology and Theoretical Astrophysics

**HSE** University Saint-Petersburg, Russia

Master of Science in Physics

Specialization in Theoretical Physics Thesis: "Determination of the primordial composition of baryonic matter in the Universe"

**Academic University** Saint-Petersburg, Russia Bachelor of Science in Applied Mathematics and Theoretical Physics 2017 - 2021

Specialization in Theoretical Physics

Thesis: "Determination of the primordial helium abundance using the analyses of H II region spectra" Main courses:

Algebra, Mathematical analysis, Probability theory, Topology, Group theory, Electrodynamics, Quantum

mechanics, Quantum field theory, Condensed matter physics, Numerical methods, General relativity, Cosmology

Academic lyceum "Physical-Technical High School" Saint-Petersburg, Russia General Certificate of Secondary Education 2014 - 2017

Specialization in physics and mathematics

#### **Work Experience**

Department of Theoretical Astrophysics, loffe institute Saint Petersburg, Russia Junior research scientist 2023 - present

CoPEA, Gazprom-neft NTC Saint Petersburg, Russia

2022 - 2023 Specialist (mathematician-programmer)

Department of Theoretical Astrophysics, loffe institute Saint Petersburg, Russia

Laboratory assistant 2021 - 2023

#### Skills

Languages: Russian (native speaker), English (Upper intermediate), Deutsch (basic)

Computer skills: Julia (PyCall, PyPlot, DelimitedFiles), Python (numpy, scipy, matplotlib, os, emcee, chainconsumer, numba), git, slurm, Excel/VBA; some coding experience in Java, SQL, C, Javascript

Researcher skills: Statistics and probability theory, Monte Carlo methods, Excel, basics in machine

learning technologies

Soft skills: Inspired worker with a strong sense of responsibility and a business-oriented approach

#### **Conferences**

- NCPHM "XVI international school on Neutrino physics and Astrophysics", Technopark Sarov, Russia. – speaker. (2024)
- ESO conference "Spectral Fidelity", Firenze, Italy speaker. (2023)

### Fellowships & Awards

- Pleiades
- o "BASIS" Foundation grant for participating in the summer school on quantum fields. (2023)
- o loffe fellowship for students of 2-4 courses. (2020)
- Awardee diploma of the All-Russian Olympiad of schoolchildren on astronomy. (2015)

## **Key publications**

Radiation

- Lysyy Yu.A., Kislitsyn P.A., Ivanchik A.V.
  Low-Energy Neutrinos from Primordial Black Holes: A New Possibility for Observing Hawking
  - Astronomy Letters, Volume 50, Issue 11, p.649-656, 2024. (Q3, Impact factor: 1.384), 2025 https://arxiv.org/abs/2201.06431
- Kislitsyn P.A., Balashev S.A., Murphy M.T., Ledoux C., Noterdaeme P., Ivanchik A.V. A new precise determination of the primordial abundance of deuterium: measurement in the metal-poor sub-DLA system at z = 3.42 towards quasar J 1332+0052.
  Monthly Notices of the Royal Astronomical Society, Volume 528, Issue 3, pp.4068-4081, 2024.
  (Q1, Impact Factor: 4.7) https://arxiv.org/abs/2401.1279
- Kurichin O.A., Kislitsyn P.A., Ivanchik A.V.
  Determination of H II Region Metallicity in the Context of Estimating the Primordial Helium Abundance.
  - Astronomy Letters, Volume 47, Issue 10, p.674-685, 2021. (Q3, Impact factor: 1.384), 2021 https://arxiv.org/abs/2201.06431
- Kurichin O.A., Kislitsyn P.A., Klimenko V.V., Balashev S.A., Ivanchik A.V.
  A new determination of the primordial helium abundance using the analyses of H II region spectra from SDSS.
  - Monthly Notices of the Royal Astronomical Society, Volume 502, Issue 2, pp.3045-3056, 2021. (Q1, Impact Factor: 5.287), 2021 https://arxiv.org/abs/2101.09127