# Curriculum Vitae

March 2023


**PERSONAL INFORMATION**

Name: **Vladislav Loktev**
Gender: **Male**
Born: **12.05.1995, Saint-Petersburg, Russia**
Citizenship: **Russian**
Current residence: **Ylioppilaskylä 34 A 11, 20540, Turku, Finland**
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**EDUCATION**

**Saint Petersburg State University**
Faculty of Mathematics and Mechanics, Department of Astronomy, 2013-2018
Saint Petersburg, Russia
*MSc in Astrophysics*
19 June 2018
Average grade: 5.0/5.0, summa cum laude

**SKILLS**

**Languages:** English (fluent), Russian (native), Finnish (conversant)
**Programming:** Fortran, Python, Julia, C/C++, LaTeX, bash, MPI, OpenMP
**Software:** Git, Gnuplot, LibreOffice

**PUBLICATIONS**

*"Uncovering the geometry of the hot X-ray corona in the Seyfert galaxy NGC4151 with IXPE"*, DOI: 10.48550/arXiv.2303.12541
Gianolli, V. E., ... **Loktev V.** (among 108 authors) ,..., **2023**

*"Astronomical puzzle Cyg X-3 is a hidden Galactic ultraluminous X-ray source"*, DOI: 10.48550/arXiv.2303.01174
Veledina A., ... **Loktev V.** (among 130 authors) ,..., **2023**

*"Timing Analysis of the 2022 Outburst of the Accreting Millisecond X-Ray Pulsar SAX J1808.4-3658: Hints of an Orbital Shrinking"*, **The Astrophysical Journal Letters**, DOI: 10.3847/2041-8213/acad81
Illiano, G., ... **Loktev V.** (among 22 authors) ,..., **2023**

*"Polarized x-rays constrain the disk-jet geometry in the black hole x-ray binary Cygnus X-1"*, **Science**, DOI: 10.1126/science.add5399
Krawczynski, H., ... **Loktev V.** (among 114 authors) ,..., **2022**

*"Analytical techniques for polarimetric imaging of accretion flows in Schwarzschild metric"*, **Astronomy & Astrophysics**, DOI: 10.1051/0004-6361/202142360
**Loktev V.**, Veledina A., Poutanen J., **2022**

*"Oblate Schwarzschild approximation for polarized radiation from rapidly rotating neutron stars"*, **Astronomy & Astrophysics**, DOI: 10.1051/0004-6361/202039134
**Loktev V.**, Salmi T., Nättilä J., Poutanen J., **2020**

*"Neutron star parameter constraints for accretion-powered millisecond pulsars from the simulated IXPE data"*, **Astronomy & Astrophysics**, DOI: 10.1051/0004-6361/202039470
Salmi T., **Loktev V.**, Korsman K., Baldini L., Tsygankov S. S., Poutanen J., **2021**

**Master's thesis, 2018**,
*Polarization properties of radiation from millisecond X-ray pulsars.*

## RESEARCH EXPERIENCE

**Pre-Doctoral Program participation in the Center for Computational Astrophysics (CCA) at Flatiron Institute**
*"Microphysics of Macroscopic Accretion Flows"*, Computational astrophysics research project
30 January - 30 June, 2023, Simons Foundation, New York, USA

**44th COSPAR Scientific Assembly**
*"Fast track: polarimetric images of black hole accretion disks"*, oral presentation
*"Obtaining neutron star parameters from X-ray polarimetric data on accreting millisecond pulsars"*, oral presentation substitute speaker
16-24 July, 2022, Athens, Greese

**1st Mondragone Frontiers of Astronomy Series** *"Fast polarimetric imaging of Kerr black holes using a Schwarzschild approximation"*, oral presentation
Monte Porzio Catone (Rome), Italy
18 - 20 May 2022

**9th Microquasar Workshop: Celebrating over 50 years of discovery** *"Signatures of strong gravity and fast motions in the polarization: exact analytical treatment"* poster
20 - 24 September 2021, Cagliari, Italy

**Third Science Collaboration Meeting** *"Rotation of polarization plane in Schwarzschild metric: complete analytical approach"*
remote oral presentation
1-3 June 2021

**CSC Summer School in High-Performance Computing** participant,
Espoo, Finland
25 June - 4 July 2019

**internship in the University of Tübingen**
Tübingen, Germany
November 2018 and October 2019

**14th Summer School on Modern Astrophysics** participant
MIPT, Moscow, Russia 2-13 July 2018

**HEA conferense**, poster
IKI RAN, Moscow, Russia
18 - 21 December 2018

**internship in Tuorla Observatory**,
University of Turku, Finland 2017 and 2018 for total 4 months.

## GRANTS AND AWARDS

Jenny and Antti Wihuri Foundation **awarded a grant** for dissertation work *"Black hole accretion disc atmospheres: from theory to observations"*
2020

**Granted scholarship** from the Vilho, Yrjö and Kalle Väisälä Fund, 2020

All-Russian Astronomical Olympiad for high school students,
2013, **Winner**.

Saint Petersburg Astronomy Olympiad, international personal competition,
2013, **Winner**.