
Ilya S. Khrykin

Curriculum Vitae

Southern Federal University
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Personal information

Date of birth	13.03.1989
Place of birth	Rostov-on-Don, Russian Federation

Education

PhD in astronomy, Heidelberg University/MPIA	2012–2016
Thesis title: “ <i>Understanding the Sources of He II Reionization</i> ”	20.04.2016
Supervisor: <i>Dr. Joseph F. Hennawi</i>	
M.S. in Physics, Southern Federal University, Rostov-on-Don, Russia	2010–2012
“ <i>Simulation of global spiral structure of galaxies NGC 3982, NGC 4030 and NGC 5247 in the hydrodynamical approximation</i> ”	
B.S. in Physics, Southern Federal University, Rostov-on-Don, Russia	2006–2010
“ <i>Shock waves in Gamma-Ray Bursts</i> ”	

Academic Experience

Southern Federal University (Rostov-on-Don, Russia)	
<i>Researcher</i>	2016 - Present
Max Planck Institute for Astronomy (Heidelberg, Germany)	
<i>Postdoctoral Researcher</i>	May 2016 - August 2016

Research interests

Epoch of Reionization (helium and hydrogen), Intergalactic and Circumgalactic medium
Quasars, AGN, Galaxy Formation & Evolution, Supernovae and Metal Enrichment of ISM

Publications and Preprints

1. **I.S. Khrykin**, G. Worseck, J.F. Hennawi, 2019, MNRAS, 484, 3897
“Evidence for Short ~ 1 Myr Lifetimes from the He II Proximity Zones of $z \simeq 4$ Quasars”
2. G. Worseck, **I.S. Khrykin**, J.F. Hennawi, 2019, to be submitted to ApJ
3. **I.S. Khrykin**, J.F. Hennawi, M. McQuinn, 2017, ApJ, 838, 96
“The Thermal Proximity Effect: a new probe of the He II reionization history and the quasar lifetime”
4. **I.S. Khrykin**, J.F. Hennawi, M. McQuinn, G. Worseck, 2016, ApJ, 824, 133
“The He II Proximity effect and the lifetime of quasars”
5. S.A. Khoperskov, A.V. Khoperskov, **I.S. Khrykin**, et al., 2012, MNRAS, 427, 1983
“Global Gravitationally-Organized Spiral Waves and the Structure of NGC 5247”

Conferences

Talk at “IGM2018: Revealing Cosmology & Reionization History with the IGM”, Tokyo, Japan	2018
Talk at “National Russian Astrophysical Conference”, Yalta, Russia	2017
Talk at “Modern Problems of ExtraGalactic Astronomy”, Moscow, Russia	2017
Talk at “From Wall to Web” conference (member of LOC), Berlin, Germany	2016

Talk at “Galaxy Coffee” seminar, MPIA, Heidelberg, Germany	2015
Talk at “The Olympian Symposium: Cosmology and the EoR”, Greece	2015
Talk at “Intergalactic Matters” Workshop (member of LOC), Heidelberg, Germany	2014
Talk at “Galaxy Coffee” seminar, MPIA, Heidelberg, Germany	2014
Poster at “A Higgs Center Workshop on Intergalactic Medium”, Edinburgh, UK	2013
Talk at “ENIGMA Group Workshop”, MPIA, Heidelberg, Germany	2013

Observing experience

Observer for 6 nights at 2.5m DuPont Telescope, Las Campanas Obs., Chile	Feb 2013
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Grants, Awards

PI on grant “Co-evolution of quasars and the intergalactic medium at high redshifts” (RFBR)	2018/19
Investigator on Russian-Indian grant “Probing the reionization epoch and the high redshift IGM” (PI: Vasiliev E./ Sethi S.)	2017/18
Investigator on grant “Chemical and Dynamical Evolution of Gas, Dust, and Stars in Galaxies” (PI: Vasiliev E.)	2017/19

Computer skills and Other

OS: Mac OS X, Linux, Windows	
Programming: Python, C, Fortran (77/90), Gnuplot, HTML	
Simulation software experience: radiative transfer algorithms, Zeus-MP, MCMC algorithms	
Languages: Russian (native speaker), English (fluent), German (basic)	
Schools:	
IMPRS Summer School “Computational Astrophysics”, Heidelberg, Germany	2012
IMPRS Summer School “First Stars and Cosmic Reionization”, Heidelberg, Germany	2010
Undergraduate practice at Special Astrophysical Observatory of Russian Academy of Sciences, Nizhnij Arkhyz, Russia	2009/10
Tutoring:	
“Introduction to Astronomy” for B.S/M.S students	2013
“Introduction to Astronomy” for high-school students	2016
“How to teach astronomy in school” for high school teachers	2017
Public Outreach:	
Invited lecturer on several Festivals of Science across Russia	2017/18

References

Associate Professor Dr. Joseph F. Hennawi MPIA/University of California Santa Barbara, Broida Hall, Santa Barbara, CA 93106-9530 , USA	Tel: +1-805-893-3503 joe@physics.ucsb.edu
Assistant Professor Dr. Matthew McQuinn University of Washington, Dept. of Astronomy, 3910 15th Ave NE, Seattle, WA 98195-1580 USA	Tel: +1-206-685-2112 mcquinn@uw.edu
Leading Researcher Dr. Evgenii O. Vasiliev Southern Federal University, Stachki Avenue 194, Rostov-on-Don 344090, Russian Federation	Tel: +7-903-462-81-48 eugstar@mail.ru
Dr. Gabor Worseck University of Potsdam, Karl-Liebknecht-Str.24/25, Potsdam/Golm, 14476, Germany	Tel: +49-331-977-59-08 gworseck@uni-potsdam.de