

Viacheslav Klimenko

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A. Professional Preparation

2009 B.Sc., Physics, Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia

2011 M.Sc., Theoretical physics, St. Petersburg Academic University, St. Petersburg, Russia

2016 Ph.D., Astronomy & Astrophysics, Ioffe institute, St. Petersburg, Russia

2022–Present Postdoctoral Fellow, Department of Physics and Astronomy, University of South Carolina, Columbia, SC, USA

B. Appointments

Apr 2022–Present Postdoctoral Fellow at the Department of Physics and Astronomy of the University of South Carolina, Columbia, SC, USA

2016–Apr 2022 Research Scientist at the Department of Applied Mathematics and Mathematical Physics of the Ioffe Institute, St. Petersburg, Russia

2011–2016 Junior Research Scientist at the Department of Theoretical Astrophysics of the Ioffe Institute, St. Petersburg, Russia

C. Honors and Awards

2017 The best scientific work of the year at the Ioffe Institute

3 invited talks at conferences and institutions

PI/Co-I on **8** grants from 4 organizations (Dynasty Foundation, Russian Foundation for Basic Research, Russian Foundation President Programme, Russian Science Foundation) totaling approximately \$ 250,000

D. List of publications

Five publications most closely related to this proposal

1. Klimenko V.V., Balashev S.A., 2020, “Physical conditions in the diffuse interstellar medium of local and high-redshift galaxies: measurements based on the excitation of H₂ rotational and C I fine-structure levels”, MNRAS, 498, 1531

2. Balashev S.A., Klimenko V.V., Noterdaeme P. et al., 2019, “X-shooter observations of strong H₂-bearing DLAs at high redshift”, MNRAS, 490, 2668

3. Balashev S.A., Noterdaeme P., Rahmani H. et al., 2017, “CO-dark molecular gas at high redshift: very large H₂ content and high pressure in a low-metallicity damped Lyman alpha

system”, MNRAS, 470, 2890

4. Klimenko V. V., Balashev S.A., Ivanchik A.V. et al., 2016, “Estimation of physical conditions in the cold phase of the interstellar medium in the sub-DLA system at $z = 2.06$ in the spectrum of the quasar J 2123–0050”, Astronomy Letters 42, 137

5. Balashev S. A., Klimenko V.V., Ivanchik A.V. et al., 2014, “Molecular hydrogen absorption systems in Sloan Digital Sky Survey”, MNRAS, 440, 225

Five additional publications

1. Kurichin O.A., Kislitsyn P.A., Klimenko V.V. et al., 2021, “A new determination of the primordial helium abundance using the analyses of H II region spectra from SDSS.”, MNRAS, 502, 3045

2. Klimenko V.V., Ivanchik A.V., Petitjean P. et al., 2020, “Measurements of T_{CMB} at high redshift based on the excitation of rotational CO and fine-structure C I levels in the diffuse ISM of high redshift galaxies”, Astronomy Letters, 46, 715

3. Klimenko V.V., Petitjean P., Ivanchik A.V., 2020, “Observational estimate of the partial covering probability of quasar emission regions by distant H₂ absorption clouds”, MNRAS, 493, 5743

4. Klimenko V.V., Balashev S.A., Ivanchik A.V. et al., 2015, “Partial covering of the emission regions of Q 0528-250 by intervening H₂ clouds”, MNRAS, 448, 280

5. Balashev S.A., Noterdaeme P., Klimenko V.V. et al., 2015, “Neutral chlorine and molecular hydrogen at high redshift”, Astronomy & Astrophysics, 575, L8

E. Synergistic Activities

2020 Public talk at the St. Petersburg Planetarium, St. Petersburg, Russia