

Artem Lutsenko, PhD student

✉ arlutsenko98@gmail.com


in <https://www.linkedin.com/in/artem-lutsenko-7845a4238/>

id <https://orcid.org/0000-0002-5461-5778/>

Education







- 2023-10 – present  **PhD, University of Padua, Italy** Astronomy.
Project title: *The structure of the Milky Way disk using large surveys.*
Supervisor: Prof. Antonella Vallenari and Prof. Giovanni Carraro
- 2020-10 – 2023-06  **M.Sc., University of Padua, Italy** Astrophysics and cosmology.
Thesis title: *Milky Way thin and thick disk kinematics with GAIA data.*
Supervisor: Prof. Giovanni Carraro
Grade: 107/110
- 2016-09 – 2020-07  **B.Sc., Southern Federal University, Russia** Physics.
Thesis title: *Simulation of the influence of the degree of multilayer structure on the temperature of the superconducting transition and the properties of cuprates.*
Supervisor: Prof. Anna Myasnikova
Grade: excellent (5/5)

Employment History

- 2020-04 – 2022-04  **Junior Research Fellow** Southern Federal University's Research Institute of Physics.
Project title: *Cosmomicophysical studies of the structure and dynamics of the Galaxy*

Research Publications




Journal Articles

- 1 Korchagin, V., **Lutsenko, A.**, Tkachenko, R., Carraro, G., & Vieira, K. (2023). Resonant effects of a bar on the galactic disk kinematics perpendicular to its plane. *Galaxies*, 11(5), 97.
 doi:10.3390/galaxies11050097
- 2 Vieira, K., Korchagin, V., Carraro, G., & **Lutsenko, A.** (2023). Vertical structure of the milky way disk with gaia dr3. *Galaxies*, 11(3), 77.  doi:10.3390/galaxies11030077
- 3 Vieira, K., Carraro, G., Korchagin, V., **Lutsenko, A.**, Girard, T. M., & van Altena, W. (2022). Milky way thin and thick disk kinematics with gaiaedr3 and rave dr5. *The Astrophysical Journal*, 932(1), 28.
 doi:10.3847/1538-4357/ac6b9b
- 4 Doronkina, S., Myasnikova, A., Dzhantemirov, A., & **Lutsenko, A.** (2022). Topological pseudogap in highly polarizable layered systems with 2d hole-like dispersion. *Physica E: Low-dimensional Systems and Nanostructures*, 136, 115052.  doi:https://doi.org/10.1016/j.physe.2021.115052
- 5 Vieira, K., Korchagin, V., & **Lutsenko, A.** (2021). Kinematics of the milky way thick disk in solar neighborhood. *International Journal of Modern Physics D*, 30(16), 2140010.
 doi:10.1142/S0218271821400101. eprint: <https://doi.org/10.1142/S0218271821400101>
- 6 Myasnikova, A. E., Nazdracheva, T. F., **Lutsenko, A.**, Dmitriev, A. V., Dzhantemirov, A. H., Zhileeva, E. A., & Moseykin, D. V. (2019). Strong long-range electron–phonon interaction as possible driving force for charge ordering in cuprates. *Journal of Physics: Condensed Matter*, 31(23), 235602.
 doi:10.1088/1361-648x/ab0d6c





Conference Proceedings

- 1 **Lutsenko, A.**, & Myasnikova, A. (2019). Simulation of resonant x-ray elastic scattering (rex) on charge ordering in cuprates. In *Proceedings of the 25th russian scientific conference of physics students and young scientists* (pp. 193–194).
- 2 Myasnikova, A., **Lutsenko, A.**, Dzhantemirov, A., Nazdracheva, T., & Moseykin, D. (2018). Modeling the resonant x-ray scattering on the charge ordering and pseudogap formation in a system with high density of correlated carriers strongly interacting with phonon field. In *Proceedings of the 38th meeting on low temperature physics (ht-38)* (p. 233).
- 3 Myasnikova, A., Nazdracheva, T., **Lutsenko, A.**, Dzhantemirov, A., Dmitriev, A., Zhileeva, E., & Moseykin, D. (2018). Strong electron-phonon interaction at high carrier density as possible driving force for charge ordering in cuprate superconductors. In *Proceedings of the 38th meeting on low temperature physics (ht-38)* (p. 185).

Honours and Awards

- 2020  **Excellence scholarship**, University of Padua, Italy.
- 2019  **Increased scholarship for noteworthy scientific activity**, Southern Federal University, Russia.
First-degree diploma in the section "7- physics of low temperature, superconductivity»,
Twenty-fifth Russian scientific conference of physics students and young scientists
- 2018  **Winner of the competition "Smart scholarship"**, Rostov-on-Don, Russia

Skills

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|-----------------|---|
| Languages |  Russian (native), English (C1), Italian (A2). |
| Coding |  Python, C# |
| Tools |  TopCat, L ^A T _E X, R, SQL |
| Searching tools |  Aladin, SIMBAD. |