SASHA OSTAPENKO

Data Scientist

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WORK EXPERIENCE

Research Assistant
the University of British Columbia

📅 September 2021 – Present 📍 Vancouver, BC

- Performed **image analysis** of Radio and X-ray telescopes data using Python tools to discover properties of the intracluster gas in galaxy clusters. This involved working with an archival database, running simulations, **analysis of images, modeling, and building a processing pipeline.**
- **Developed a python package** (adpipy) to perform statistical analysis and visualization of data cube images.

Science-Policy Research Assistant
the University of British Columbia

📅 September 2022 – May 2023 📍 Vancouver, BC

- Estimated the **impact of satellites** and debris re-entry on Earth's atmosphere.
- Provided **light pollution policy regulation**: project of IAU Center for the protection of the Dark and Quite Skies from Satellite Constellation Interference.
- Estimated quality of **FCC licensing** (mostly **spectrum granting**).

Teacher Assistant of Astrobiology class
the University of British Columbia

📅 Sept 2021 – May 2022 📍 Vancouver, BC

- Provided office hours for more than 70 undergraduate students, and graded homework and exams.

Intern
Astronomical Observatory of the Jagiellonian University

📅 July 2019, July 2020 📍 Kraków, Poland

- Performed time series and image analysis to study the active galactic nuclei and properties of the galaxies' interactions.

EDUCATION

Master of Science in Astronomy
the University of British Columbia

📅 Sept 2021– Present 📍 Vancouver, BC

B.Sc. in Physics and Astronomy
Taras Shevchenko National University of Kyiv

📅 2017 – 2021 📍 Kyiv, Ukraine

AWARDS

- Awarded with International Tuition Award ($3200 per year) by the Faculty of Graduate and Postdoctoral Studies by the University of British Columbia.
- Awarded with enhanced scholarship by Taras Shevchenko National University of Kyiv.
- Awarded with scholarship during all semesters of bachelor studying by Taras Shevchenko National University of Kyiv.

SKILLS AND TOOLS

- **Python** (i.e. numpy, scipy, pandas, matplotlib, shapely, astropy, pyregion, aplpy …)
- **R** (i.e. ggplot2, FITSio, dplyr …), **SQL**
- **Remote Computing (ssh), Terminal command line, Bash Scripting**
- **Version Control (Git)**
- **Microsoft Office tools** (Microsoft Word, Excel)
- **Latex**, HTML/CSS
- **Wolfram Mathematica**

- **Project managment** Successfully combined several research projects, teaching, and management of administrative tasks.
- **Problem-solving** In course of my studies successfully solved multiple diverse scientific, technical, and management problems.
- **Public Presentation** Presented my research at multiple international scientific conferences to an audience of more than 50 people.
- **Event organizing** Organized scientific conferences, festival of innovations, and music events for more than 500 participants.

ACHIVEMENTS

- 2 Oral presentations at *YMCA Institut d'Astrophysique de Paris* and *Galaxy seminar Institut d'Astrophysique de Paris 2023*: A multi-wavelength study of the intracluster medium in the MS0451 galaxy cluster using ALMA and Chandra observations.
- *Publication:* **O. Ostapenko**, M. Tarnopolski, N. Żywucka, J. Pascual-Granado (2020) Searching for signatures of chaos in gamma-ray light curves of selected Fermi-LAT blazars. Monthly Notices of the Royal Astronomical Society.
- Poster presentation at *CASCA 2021* with work 'Searching for Signatures of Chaos in Gamma-ray Light Curves of Selected Fermi/LAT Blazars'.
- Oral presentation at 27th *Young Scientists' Conference on Astronomy and Space Physics* with work 'Investigation of the detectability of bright GRBs in TeV range with future neutrino observatories'.
- Oral presentation at 27th *Young Scientists' Conference on Astronomy and Space Physics*: with work 'Signatures of Chaos in Gamma-ray Light Curves of Selected Fermi/LAT Blazars. International conference'.

LANGUAGES

English   Ukrainian   German