

About me

Name: Lis Zwicky (Tsvikki)

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I am a PhD student at Konkoly Observatory. My research interests include star and planet formation, physics and chemistry of interstellar medium, radiative transfer and radioastronomy. I am specialised in modelling both chemical and dust composition of stationary disks together with emission from those components of the disk. I am currently engaged in a number of projects concerning exploring variability of young stars at different wavelengths.

Education

- **Specialist (BSc+MSc) in Astronomy**, Ural Federal University
[Sep. 2018 — Aug. 2024]
- **PhD in Astronomy**, Eötvös Loránd University
[Sep. 2024 — ongoing]

Employment

- **Technician**, Kourovka Astronomical Observatory
[Nov. 2022 — May 2023]
- **Assistant Researcher**, Kourovka Astronomical Observatory
[May 2023 — Sep. 2024]
- **Junior Research Fellow**, Konkoly Observatory, CSFK
[Sep. 2024 — ongoing]

Conferences and schools

- **2nd Student and Young Researcher Scientific Conference “Astronomy and outer space exploration”**
Contributed talk: “Impact of rates of reactions with cosmic ray induced photons on gas and ice composition in protoplanetary discs”
Kourovka Astronomical Observatory, Yekaterinburg, Russia
[31.01.2022 — 04.02.2022]
- **50th International Student Scientific Conference “Physics of Space”**
Contributed talk: “CO isotopologue lines as observational tracers of past FUor outbursts”
Kourovka Astronomical Observatory, Yekaterinburg, Russia
[30.01.2023 — 03.02.2023]
- **XXI Young Researcher Conference “Fundamental and Applied Space Research”**
Contributed talk: “Modelling of the past FU Ori outbursts in molecular lines”
Institute of Space Research, Moscow, Russia
[10.04.2024 — 12.04.2024]

- **32nd International Astronomical Union General Assembly 2024**

Poster: “Observational and Chemical Modelling of Protoplanetary Disks after FU Ori outbursts”

Cape Town, South Africa

[06.08.2024 — 15.08.2024]

- **Born in Fire: Eruptive Stars and Planet Formation**

Online participation with ePoster: “Searching for the past FU Ori Outbursts with Submillimeter Molecular Lines”

U. Diego Portales, Santiago, Chile

[24.09.2024 — 27.09.2024]

- **Spring school “The Birth of Solar Planets”**

Participant with a poster

Bertinoro, Italy

[25.02.2025 — 06.03.2025]

- **EAS Annual Meeting 2025**

Online participation with ePoster: “Disk Parameters from CO isotopologues: Its COmplicated”

Cork, Ireland

[24.06.2025 — 27.06.2025]

- **Graz-Vienna Exoplanet Scientist Meeting VII**

Contributed talk: “Mid-infrared variability monitoring and modelling of DQ Tau disk”

Vienna, Austria

[26.09.2025]

Papers

First author

- Zwicky L. N., Molyarova T. S.

The impact of rates of reactions with cosmic ray induced photons on chemical composition of protoplanetary discs

INASAN Science Reports, Volume 6, pp. 122-128, 2021.

- Lis Zwicky, Tamara Molyarova, Vitaly Akimkin et al.

Observational Chemical Signatures of the Past FU Ori Outbursts

MNRAS, Volume 527, Issue 3, pp.7652-7671, 2024

- L. Zwicky, T. Molyarova, Á. Kóspál, P. Ábrahám

Dancing on the grain: Variety of CO and its isotopologue fluxes as a result of surface chemistry and T Tauri disk properties

Astronomy & Astrophysics, Volume 699, id.A377, 17 pp., 2025

Coauthorship

- Varga, J., Matter, A., Millour, F... Zwicky, L.

T CrA has a companion: First direct detection of T CrA B with VLT/MATISSE

Astronomy & Astrophysics, Volume 695, id.L21, 9 pp.

- Kóspál, Á., Ábrahám, P., Akimkin, V... Zwicky, L.

Time-resolved protoplanetary disk physics in DQ Tau with JWST

Astronomy & Astrophysics, Volume 703, id.A20, 21 pp.