CONTACT

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MICHAL STEINER

Assistant / Research Teaching Assistant (PhD candidate)
1st year
Astrophyics; Exoplanets; Exoplanetary atmospheres

EDUCATION

Ph. D. - Astrophysics; Exoplanetology; Atmospheres of exoplanets **2021 - ongoing**
University of Geneva - Geneva, Switzerland

Current Status: 1st year Ph.D. candidate
Focus on transmission spectroscopy of exoplanetary atmospheres using high-resolution spectrographs.

Master program - Astrophysics; Exoplanetology **2019 - 2021**
University of Geneva - Geneva, Switzerland

Master program in astrophysics
Specialization in exoplanetology
Master thesis on the topic of transmission spectroscopy of exo-atmospheres

Bachelor program - General Physics **2015 - 2019**
Charles University - Prague, Czech republic

Bachelor program in General Physics
Bachelor thesis on the topic of radial velocity measurement

LANGUAGES

Czech Native

English 10+ yrs

German 4+ yrs

Japanese 1 yr

PUBLICATIONS

SKILLS

Python 4+ yrs

MATLAB 1 yr

IDL 1/2 yr

Pascal 1/2 yrs

PROJECTS

High-resolution spectroscopy of planetary atmosphere (Master thesis) **2021**
Tool: Python (pipeline created by myself)

Conduct transmission spectroscopy on two transit night HARPS dataset. Main focus has been search for sodium and balmer lines. This work will lead to my first publication (above)
Supervisor:

- Prof. D. Ehrenreich; David.Ehrenreich@unige.ch

Co-supervisors:

- Prof. V. Bourrier; Vincent.Bourrier@unige.ch
- Prof. C. Lovis; Christophe.Lovis@unige.ch
- Dr. J.V. Seidel; JuliaVictoria.Seidel@eso.org

Astrophysics lab project II: Introduction to the physics of low-mass stars and study of the impact of the helium enrichment
Tool: Python (pipeline created by myself)

Analyze grid of stellar model with enriched helium abundances
Supervisor:

- T. Dumont; Thibaut.Dumont@unige.ch

Astrophysics lab project I: Study of WASP-166b, hunting for metals in the atmosphere via transmission spectroscopy and CCFs
Tool: Python (pipeline created by myself)

Conduct transmission spectroscopy on HARPS dataset. Main focus has been search for sodium and iron, both through resolved line detection and CCFs.
Supervisor:

- Dr. J.V. Seidel; JuliaVictoria.Seidel@eso.org

A new study of the long-term and orbital variations of the Be star V923 Aql (Bachelor's thesis)
Tool: Fortran code (externally provided)

Analyze spectroscopic dataset to measure radial velocities in search for long-term and orbital variation Supervisor:

- prof. RNDr. Petr Harmanec, DrSc.; petr.harmanec@mff.cuni.cz

A contribution to finishing the study of a massive quadruple system V649 Cas
Tool: Fortran code (externally provided)

Studentship: Measure radial velocities from spectra in quadruple system.

Physical applications of Fourrier transformation
Tool: IDL (pipeline created by myself)

Studentship: Applications of Fourrier transform using IDL

WORKSHOPS & CONFERENCES

EAS 2022
Valencia (Spain)

Poster: KELT-10b through high-resolution spectroscopy

General Assembly of PlanetS
Grindelwald (Switzerland)

Talk (15min) - splinter session domain 3
KELT-10b through high-resolution spectroscopy

JURA 2022 conference
Leissigen (Switzerland)

Talk (15min)
Eyes on KELT-10b

EXTRACURRICULAR

- Observations with the EULER 1.2 m telescope
  - February 2022 (4 nights)
  - October 2021 (6 nights)
  - July 2021 (7 nights)
- Public visits
  - March 2022 - High school visit