CAMILLE LANDRI

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Institute of Theoretical Physics, Faculty of Mathematics and Physics, Charles University
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EDUCATION

PhD student in Astrophysics, Charles University, Prague, Czechia *Since October 2020*
In the Time-domain Astronomy group of Dr. Ondřej Pejcha.
Thesis topic: Theory and observation of strong interactions or mergers of two stars.
Thesis advisor: Dr. Ondřej Pejcha

M.Sc. in Astrophysics Uppsala University, Uppsala, Sweden *September 2017 - January 2020*
Thesis title: The Peculiar IR Emission of SN2014dt.
Thesis advisor: Dr. Joel Johansson

B.Sc. in Physics, Université Grenoble Alpes, Grenoble, France *September 2014 - June 2017*
Final year at Umeå University, Sweden with the Erasmus Program

RESEARCH

Charles University, Prague, Prague, Czechia *January 2021 - present*
Current Research: Modelling stellar collision with SPH
- Modelling of stellar collisions with the SPH code Phantom. The ensuing mass loss will be used to estimate the transient caused by the collision.
- Tools: Fortran, Phantom, Python, supercomputing

Charles University, Prague, Czechia *October 2020 - September 2022*
Current Research: Characterisation of a peculiar cataclysmic variable.
- Photometric and spectroscopic analysis of a candidate cataclysmic variable showing unusually long outbursts recurring every 3 years. The photometry shows traces of an outbursting disc and the object is somewhat similar to U Gem dwarf novae. A possible interpretation is that this system is an extreme dwarf nova. (*paper submitted*)
- Tools: Python, Phoebe, Iraf

Uppsala University, Uppsala, Sweden *January 2019 - June 2019*
Master Thesis: The Peculiar IR Emission of SN2014dt.
- Study of late time optical to mid-infrared photometry of the Type Iax Supernova 2014dt. A clear excess is detected from 300 to 700 days post-explosion in near and mid-IR observations. The bolometric output is computed at late times and basic radioactive decay models fail to explain the observed excess in the light curves. A warm dust model is then tested against the spectral energy distributions, and successfully describes 10^{-5} $M_{\odot}$ of dust at 700 K. Possible heating scenarios for pre-existing dust are then discussed, as well as the need for further constraints.
- **Tools:** Python
- **Advisor:** Dr. Joel Johansson, Stockholm University

Uppsala University, Uppsala, Sweden *January 2018 - June 2019*
Academic Project: Constraining the Warm Dark Matter mass using high-redshift galaxies.
- Forecast of the constrains on Warm Dark Matter masses obtained using JWST observations of high-redshift galaxies.
- **Tools:** Fortran, Python, supercomputing
- **Advisor:** Dr. Martin Sahlén, Uppsala University

OUTREACH

Scientific Game Jam, Grenoble, France *March 2019*
48 hour-long contest to design a game that explains a topic of scientific research to the general public. Participated to the design of two games with the following themes:
- Supernovae
- Tunnel Magnetoresistance

TALKS

- **Week of Doctoral Students**, Charles University, Prague *June 2021*
OGLE-BLG504.12.201843: An Extreme Dwarf Nova

PUBLICATIONS

- **OGLE-BLG504.12.201843: A possible extreme dwarf nova with year-long outbursts**, *Camille Landri, Ondřej Pejcha, Micha Pawlak, Andrzej Udalski, Jose L. Prieto, Manuel Barrientos, Jay Strader and Subo Dong, MNRAS, accepted September 2022*

- **The complex dynamical past and future of double eclipsing binary CzeV343: misaligned orbits and period resonance**, *Ondej Pejcha, Pavel Caga, Camille Landri, Michael M. Fausnaugh, Gisella De Rosa, Jose L. Prieto, Zbynk Henzl, Milan Peta, A&A, accepted August 2022*

SKILLS

Languages:	French (native), English (C1), Swedish (A2), German (A2)
Programming:	Python, Fortran, C/C++, Java, Matlab, HTML/CSS
Other:	Unix, LaTeX, git, SQL

REFERENCES

Dr. Joel Johansson
The Oskar Klein Centre for Cosmoparticle Physics,
Stockholm University,
Stockholm, Sweden
joeljo@fysik.su.se

Dr. Martin Sahlén
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