

Tereza Jeřábková

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Bonn University
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Date of birth: 21. 5. 1991
Place of birth: Prague, Czech Republic

Astronomical Institute
Charles University in Prague
V Holešovičkách 2, CZ-180 00 Praha 8,
Czech Republic

Education

- 2017-now **ESO studentship**, European Southern Observatory, Garching, Germany
Supervisor Dr. Giacomo Beccari
- 2016-now **PhD** Theoretical Physics, Astronomy and Astrophysics, Charles University in Prague
& Astronomy and Astrophysics, University of Bonn
Research: A study of the universality of the stellar initial mass function
Supervisor Prof. Dr. Pavel Kroupa, Advisors Dr. Jaroslav Hass, Dr. Giacomo Beccari (ESO)
- 2013-2016 **Msc** Astronomy and Astrophysics, Charles University in Prague
final exam: *excellent, passed with distinction*
Thesis: Supernova driven super star cluster wind (written in English)
Supervisor Mgr. Richard Wunsch, Ph.D., Referee Prof. Dr. Stefanie Walf-Gassner
Final grade: *excellent*
- 2010-2013 **Bc** General Physics, Charles University in Prague
final exam: *excellent*
Thesis: Spectral analysis of the B[e] star V743 Mon (written in Czech)
Supervisor Mgr. Daniela Korčáková, Ph.D., Referee Prof. Mgr. Jiří Krtička, Ph.D.
Final grade: *excellent*
- 2006-2010 **High School** Technical lyceum, PSS Letorad
final exam: *excellent, passed with distinction*
Thesis: Photometry of extrasolar planets (written in Czech)
Supervisor Mgr. Vladimír Stránský, Referee Mgr. Sylva Plívová
final grade: *excellent*

Publications

13 accepted refereed papers (3 first author, 5 second author), 70 citations, H-index 6

2018

Jeřábková, T., Hasani Zonoozi, A., Kroupa, P., Beccari, G., Yan, Z., Vazdekis, A., and Zhang, Z.-Y. (2018). Impact of metallicity and star formation rate on the time-dependent, galaxy-wide stellar initial mass function. *A&A*, 620:A39

Pavlík, V., **Jeřábková**, T., Kroupa, P., and Baumgardt, H. (2018). The black hole retention fraction in star clusters. *A&A*, 617:A69

Beccari, G., Boffin, H. M. J., and **Jerabkova**, T. e. a. (2018a). A sextet of clusters in the Vela OB2 region revealed by Gaia. *MNRAS letters*, 481:L11–L15

Wang, L., Kroupa, P., and **Jerabkova**, T. (2018). Complete ejection of OB stars from very young star clusters and the formation of multiple populations. *MNRAS*

Kroupa, P. and **Jerabkova**, T. (2018). The Impact of Binaries on the Stellar Initial Mass Function. *Book chapter, Cambridge University Press*

Kroupa, P., **Jerabkova**, T., Dinnbier, F., Beccari, G., and Yan, Z. (2018). Evidence for feedback and stellar-dynamically regulated bursty star cluster formation: the case of the Orion Nebula Cluster. *A&A*

Watts, A. B. et al. incl. **Jerabkova**, T. (2018). Star formation in the outskirts of DDO 154: a top-light IMF in a nearly dormant disc. *MNRAS*, 477:5554–5567

Manara, C. F. e. a. i. **Jerabkova**. (2018). Gaia DR2 view of the Lupus V-VI clouds: The candidate diskless young stellar objects are mainly background contaminants. *A&A letters*, 615:L1

2017

Jerabkova, T., Kroupa, P., Dabringhausen, J., Hilker, M., and Bekki, K. (2017). The formation of UCDs and massive GCs: Quasar-like objects for testing for a variable stellar initial mass function (IMF). *A&A*

Yan, Z., **Jerabkova**, T., and Kroupa, P. (2017). The optimally-sampled galaxy-wide stellar initial mass function - Observational tests and the publicly available GalIMF code. *A&A*

Bekki, K., **Jeřábková**, T., and Kroupa, P. (2017). The origin of discrete multiple stellar populations in globular clusters. *MNRAS*, 471:2242–2253

2016

Sedaghati, E., Boffin, H., **Jeřábková**, T., and et al. (2016). Potassium detection in the clear atmosphere of a hot-Jupiter: FORS2 transmission spectroscopy of WASP-17b. *A&A*

Jeřábková, T., Korčáková, D., Miroshnichenko, A., and et al. (2016). Time-dependent spectral-feature variations of stars displaying the B[e] phenomenon. III. HD 50138. *A&A*, 586:A116

Conference proceedings

- 2018 | Beccari, G., **Jeřabkova, T.**, Petr-Gotzens, M., De Marchi, G., Panagia, N., Kalari, V., Drew, J., Testi, L., Manara, C., Romaniello, M., Carraro, G., Mieske, S., de Wit, W., Fedele, D., Wright, N. J., Walsh, J. R., Mardones, D., Martin, E., and Vink, J. (2018b). Accretion Discs in H α with OmegaCAM - ADHOC Survey. In *VST in the Era of the Large Sky Surveys*, page 22
- 2016 | **Jeřábková, T.**, Korčáková, D., Miroshnichenko, A., and et al. (2016). Time-dependent spectral-feature variations of the FS CMa star HD 50138. In Miroshnichenko, A., Zharikov, S., and Korčáková, D., editors, *THE B[e] PHENOMENOM: FORTY YEARS OF STUDIES*, Astronomical Society of the Pacific Conference Series. in print
- Korčáková, D., Polster, J., **Jeřábková, T.**, and et al. (2016). Long-term Spectroscopic Monitoring of B[e] Stars at the Ondřejov Observatory. In Miroshnichenko, A., Zharikov, S., and Korčáková, D., editors, *THE B[e] PHENOMENOM: FORTY YEARS OF STUDIES*, Astronomical Society of the Pacific Conference Series. in print
- Kříček, R., Korčáková, D., **Jeřábková, T.**, and et al. (2016). Spectral Variations and Simple Models of FS CMa. In Miroshnichenko, A., Zharikov, S., and Korčáková, D., editors, *THE B[e] PHENOMENOM: FORTY YEARS OF STUDIES*, Astronomical Society of the Pacific Conference Series. in print

Research & Professional Experience

- November 1-17 2018: **Observations at APEX**, Chile February 19 - March 2 2018: **ESO/NEON La Silla Summer School**, Chile, project: Binary nature of Planetary Nebulae, supervised by Henri Boffin
- November 14-15 2018: **OPC 101 meeting**, Observing Programmes Committee meeting, scientific assistant in category C3 (Star forming regions, globules, protostars, HII regions)
- September 2017 – : **ESO studentship**, opportunity to work with ESO scientist at European Southern Observatory headquarter in Garching, Germany
- September 1-11, 2015: **ESO/OPTICON Summer School on Modern Instruments, Their Science Case, and Practical Data reduction**, summer school, talk: Photometry and astrometry with NACO/VLT instrument: confirmation of a brown dwarf binary system
- August 2015 : **DAAD student at DLR Berlin**, reduction and analysis of photometric and spectroscopic data (Juan Cabrera)
- August 22 - October 22, 2014 : **Student visitor at ESO Chile**, optimization of transmission spectroscopy of exoplanets (Petr Kabath)
- 2012-2014: **Organizer of Mathematical and Physical camps for high school students**, lecturing and tutoring, supported by Charles University in Prague
- July-August 2012: **Student intern at Stellar Department of Astronomical Institute of the Czech Republic**, development of data reduction and analysis software (Daniela Korčáková)
- July-August 2010: **Student intern at Stellar Department of Astronomical Institute of the Czech Republic**, spectroscopic observations and data reduction (Daniela Korčáková)

Conferences

- 18-22 September 2017, **Modelling and observing dense stellar systems – MODEST**¹⁷, oral presentation: Stellar populations in extreme star burst clusters and UCDS
- 3-7 July 2017, **The IMPACT of BINARIES on STELLAR EVOLUTION**, ESO Garching, Germany, member of Local organising committee
- 11-12 May 2017: **20th Meeting on Research in Astronomy**, Zanjan, Iran, **Invited** talk: The stellar and galaxy-wide IMF
- 7-10 May 2017: **International School on Star Clusters with Gaia**, Zanjan, Iran, Talk: The emergence of multiple populations in dense and massive star-burst clusters.
- 5 - 9 December 2016: **The Universal Problem of the Non-Universal IMF**, Leiden, Netherlands, Talk: Top-heavy IMF in anomalous globular clusters?
- 27 June - 1 July 2016: **The B[e] Phenomenon: Forty Years of Studies**, Prague, Czech Republic, Poster: Time-dependent spectral-feature variations of stars displaying the B[e] phenomenon. III. HD 50138

Small Workshops & short-term visits

- 10 November 2017, **Visit of exoplanetary group in Onrejov, head Dr. Petr Kabath**, talk: The formation of ONC: stellar dynamics and feedback in act
- 1st March - 6th April 2017: **Visit of ICRAR, UWA**, Australia: collaboration with Kenji Bekki, resulting in Bekki, Jeřabkova, Kroupa, MNRAS, 2017.
- 12 December 2016: **Invited Seminar at Masarykova Universita, Brno**, Czech Republic, talk: Supernovae in massive star clusters
- 14-27th October 2016: **Visit at IAC, La Laguna, Tenerife**, collaboration with Alejandro Vazdekis and Mike Beasley - ultra compact dwarf galaxies and multiple populations in star clusters. Talk: Top-heavy IMF in anomalous GCs?
- 1st-9th September 2016: **Visit at ESO, Garching**, collaboration with Giacomo Beccari and Michael Hilker. Informal discussion: How could be anomalous GCs formed?
- 15-27th April 2016: **Visit at the ICRAR, WA, Australia**, variable IMF project with Pavel Kroupa, Kenji Bekki and Gerhardt Meurer. Seminar: Possible formation scenario for anomalous GCs
- 6th April 2016: **University Colloquium**, Charles University in Prague, talk: Supernova driven star cluster wind
- 16-18th March 2016: **Visit at the Stellar Populations and Dynamics research group**, HISKP, University of Bonn, Seminar: Supernovae driven star cluster wind
- 2nd-4th March 2016: **SILCC workshop**, I. Physikalisches Institut, Universität zu Köln, Talk: Supernovae driven star cluster wind with dust cooling
- 23-27th February 2016: **Visit at Institute of Astronomy in Vienna**, group of Joao Alves and Gerhard Hensler, talk: Supernova driven star cluster wind
- 21-25th September 2015: **First Workshop on Progress in Modelling Galaxy Formation and Evolution in Milgromian dynamics: first results achieved with the Phantom of Ramses (PoR) code**, Observatoire astronomique de Strasbourg, Université de Strasbourg, CNRS UMR 7550.
- 11-13th March 2015: **Triggered high-mass star formation: their formation and feedback in galaxies**. Astronomical Institute ASCR, Prague, Talk: Time-dependent spectral-feature variation of stars displaying the B[e] phenomenon HD 50138
- 7th January 2015: **University Colloquium**, Charles University in Prague, talk: Optimizing pipeline for transmission spectroscopy of extrasolar planets

Language skills

Czech : native language • English : fluent • German : basic

Software skills

operational systems: unix based

programming : C, FORTRAN, Python

used codes: PEGASE, StarBurst99, FLASH, RAMSES (POR), NBODY 6

Last updated: December 18, 2018