

VEDAD KUNOVAC

Data-driven astronomer specialising in exoplanet characterisation. Expertise in Bayesian inference and predictive modelling applied to astronomical data such as high-resolution spectra, extreme precision radial velocities, and time-series photometry.

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RESEARCH EXPERIENCE

2024–	University of Warwick , Senior Research Fellow	Coventry, UK
2023–2024	University of Warwick , Research Fellow	Coventry, UK
2021–2023	Lowell Observatory , Postdoctoral Associate	Flagstaff, USA
2017–2021	University of Birmingham , Postgraduate Research Student	Birmingham, UK
2019–2020	University of Chicago , Fulbright Fellow	Chicago, USA
2016–2017	University of Cambridge , Visiting Research Student	Cambridge, UK
2015–2016	European Space Agency - ESAC , Trainee	Madrid, Spain
2015	NASA Jet Propulsion Laboratory , Visiting Research Student	Los Angeles, USA
2014	University of Oslo , Research Assistant	Oslo, Norway

EDUCATION

2017–2021	PhD Astronomy , University of Birmingham <i>Thesis research at University of Chicago 09/2019–03/2020</i> Thesis: <i>Obliquities of stars from the study of transiting exoplanets and eclipsing binaries</i> Supervisor: Prof. Amaury Triaud	Birmingham, UK
2014–2017	MSc Astronomy , University of Oslo <i>Thesis research at University of Cambridge 04/2016–04/2017</i> Thesis: <i>Early Science with the Next Generation Transit Survey</i> Supervisors: Prof. Didier Queloz, Dr Edward Gillen	Oslo, Norway
2011–2014	BSc Physics & Astronomy , University of Oslo	Oslo, Norway

AWARDS AND GRANTS

2023	Royal Society Newton International Fellowship , £396 000
2019	Fulbright Scholarship , £10 000
2017	Birmingham Doctoral Scholarship , £21 000

SELECTED OBSERVING PROPOSALS

2022	Gemini-N/MAROON-X , 6.5 hours, PI Kunovac <i>A rare test of planet formation models: the obliquity of the 540-day transiting giant planet HIP 41378 f</i>	Hawaii, USA
2022	WIYN/NEID , 6.5 hours, PI Kunovac <i>A rare test of planet formation models: the obliquity of the 540-day transiting giant planet HIP 41378 f</i>	AZ, USA
2022	LDT/EXPRES , 27 nights, PI Kunovac <i>Exploring the origins of small planets by measuring stellar obliquities</i>	AZ, USA
2021	LDT/EXPRES , 5.75 nights, PI Hodžić <i>Exploring the origins of warm gas giant planets by measuring stellar obliquities</i>	AZ, USA
2018	VLT/ESPRESSO , 11 hours, PI Hodžić <i>Spin-orbit angle measurement of a bright star to distinguish super-Earth formation scenarios</i>	Paranal, Chile

OBSERVING EXPERIENCE

Lowell Discovery Telescope, EXPRES, 22+ nights	AZ, USA
Observatoire de Haute-Provence, SOPHIE, 14+ nights	France
ESO La Silla Observatory, HARPS, 27+ nights	Chile

SELECTED PRESENTATIONS

2024	Extreme Solar Systems V, poster	Christchurch, New Zealand
2023	Northern Arizona University, colloquium speaker	Flagstaff, USA
2022	Cool Stars 21, poster	Toulouse, France
2022	Exoplanets IV, poster	Las Vegas, USA
2021	UK Exoplanet Meeting, contributed talk	Online
2021	The Ohio State University, exoplanet seminar	Online
2020	PLATO ESP: Planetary interiors and system architectures, contributed talk	Online
2019	Lake Michigan Exoplanet Meeting, contributed talk	Chicago, USA
2019	Extreme Solar Systems IV, poster	Reykjavik, Iceland
2018	Sagan Exoplanet Summer Workshop, poster and pop talk	Los Angeles, USA
2018	Exoplanets II, poster	Cambridge, UK
2018	UK Exoplanet Meeting, poster and pop talk	Oxford, UK
2018	Exoplanetary Science II, poster and pop talk	Quy Nhon, Vietnam
2017	Cavendish Astrophysics, seminar	Cambridge, UK
2017	Cambridge Exoplanet Day, contributed talk	Cambridge, UK

TEACHING EXPERIENCE

2022	Lowell Observatory, REU student supervisor	Flagstaff, USA
2017–2019	University of Birmingham, Computing lab demonstrator	Birmingham, UK
2014–2015	University of Oslo, Physics teaching assistant	Oslo, Norway
2013–2015	ENT3R, Science mentor, tutoring	Oslo, Norway

OUTREACH

2024–	Warwick Mobile Planetarium, Demonstrator	West Midlands, UK
2022	Lowell Observatory, Meet an Astronomer	Flagstaff, USA
2021	In2Science UK, Mentor	Birmingham, UK
2017–2018	University of Birmingham, Open days	Birmingham, UK
2016	University of Cambridge, “Physics at Work”, astronomy talks to middle schoolers	Cambridge, UK
2015	University of Oslo, astronomy talk to high school class	Oslo, Norway
2013–2015	ENT3R, science talks, experiments and recruitment to middle and high schoolers	Oslo, Norway

PEER-REVIEWED PUBLICATIONS

NASA ADS link to all publications: <https://tinyurl.com/KunovacADS>

405 citations

FIRST AUTHOR

- [1] Orbital misalignment of the super-Earth π Men c with the spin of its star [2021, MNRAS, 502, 2893](#)
KUNOVAC HODŽIĆ, TRIAUD, CEGLA, CHAPLIN, DAVIES *ET AL.*
- [2] The EBLM project - VII. Spin-orbit alignment for the circumbinary planet host EBLM J0608-59 A/TOI-1338 A [2020, MNRAS, 497, 1627](#)
KUNOVAC HODŽIĆ, TRIAUD, MARTIN, FABRYCKY, CEGLA *ET AL.*
- [3] WASP-128b: a transiting brown dwarf in the dynamical-tide regime [2018, MNRAS, 481, 5091](#)
HODŽIĆ, TRIAUD, ANDERSON, BOUCHY, COLLIER CAMERON *ET AL.*

CO-AUTHOR WITH SIGNIFICANT CONTRIBUTION

- [4] The TESS-SPOC FFI target sample explored with Gaia [2024, MNRAS, 529, 1802](#)
DOYLE, ARMSTRONG, BAYLISS, RODEL AND KUNOVAC
- [5] Radial-velocity discovery of a second planet in the TOI-1338/BEBOP-1 circumbinary system [2023, Nature Astr., 7, 702](#)
STANDING, SAIRAM, MARTIN, TRIAUD, CORREIA *ET AL.*
- [6] Measured spin-orbit alignment of ultra-short-period super-Earth 55 Cancri e [2023, Nature Astr., 7, 198](#)
ZHAO, KUNOVAC, BREWER, LLAMA, MILLHOLLAND *ET AL.*
- [7] TOI-1259Ab - a gas giant planet with 2.7 per cent deep transits and a bound white dwarf companion [2021, MNRAS, 507, 4132](#)
MARTIN, EL-BADRY, KUNOVAC HODŽIĆ, TRIAUD, ANGUS *ET AL.*
- [8] The TESS light curve of the eccentric eclipsing binary 1SWASP J011351.29+314909.7 - no evidence for a very hot M-dwarf companion [2020, MNRAS, 498, L15](#)
SWAYNE, MAXTED, KUNOVAC HODŽIĆ AND TRIAUD
- [9] An eclipsing substellar binary in a young triple system discovered by SPECULOOS [2020, Nature Astr., 4, 650](#)
TRIAUD, BURGASSER, BURDANOV, KUNOVAC HODŽIĆ, ALONSO *ET AL.*

CO-AUTHOR

- [10] BEBOP V. Homogeneous stellar analysis of potential circumbinary planet hosts [2024, MNRAS, 531, 4085](#)
FRECKELTON, SEBASTIAN, MORTIER, TRIAUD, MAXTED *ET AL.*
- [11] The EBLM Project XII. An eccentric, long-period eclipsing binary with a companion near the hydrogen-burning limit [2024, MNRAS, 530, 2565](#)
DAVIS, TRIAUD, FRECKELTON, MORTIER, SEBASTIAN *ET AL.*
- [12] The EBLM Project- XI. Mass, radius, and effective temperature measurements for 23 M-dwarf companions to solar-type stars observed with CHEOPS [2024, MNRAS, 528, 5703](#)
SWAYNE, MAXTED, TRIAUD, SOUSA, DELINE *ET AL.*
- [13] The EBLM project X. Benchmark masses, radii, and temperatures for two fully convective M-dwarfs using K2 [2023, MNRAS, 521, 6305](#)
DUCK, MARTIN, GILL, ARMITAGE, RODRÍGUEZ MARTÍNEZ *ET AL.*
- [14] The EBLM project - IX. Five fully convective M-dwarfs, precisely measured with CHEOPS and TESS light curves [2023, MNRAS, 519, 3546](#)
SEBASTIAN, SWAYNE, MAXTED, TRIAUD, SOUSA *ET AL.*
- [15] Spectroscopy of TOI-1259B - an unpolluted white dwarf companion to an inflated warm Saturn [2023, MNRAS, 518, 636](#)
FITZMAURICE, MARTIN, RODRÍGUEZ MARTÍNEZ, VALLELY, STEPHAN *ET AL.*

- [17] Rossiter-McLaughlin detection of the 9-month period transiting exoplanet HIP41378 d [2022, A&A, 668, A172](#)
GROUFFAL, SANTERNE, BOURRIER, DUMUSQUE, TRIAUD *ET AL.*
- [18] Two temperate super-Earths transiting a nearby late-type M dwarf [2022, A&A, 667, A59](#)
DELREZ, MURRAY, POZUELOS, NARITA, DUCROT *ET AL.*
- [19] The Hot Neptune WASP-166 b with ESPRESSO - I. Refining the planetary architecture and stellar variability [2022, MNRAS, 516, 298](#)
DOYLE, CEGLA, BRYANT, BAYLISS, LAFARGA *ET AL.*
- [20] BEBOP III. Observations and an independent mass measurement of Kepler-16 (AB) b - the first circumbinary planet detected with radial velocities [2022, MNRAS, 511, 3561](#)
TRIAUD, STANDING, HEIDARI, MARTIN, BOISSE *ET AL.*
- [21] BEBOP II: sensitivity to sub-Saturn circumbinary planets using radial-velocities [2022, MNRAS, 511, 3571](#)
STANDING, TRIAUD, FARIA, MARTIN, BOISSE *ET AL.*
- [22] The EBLM project - VIII. First results for M-dwarf mass, radius, and effective temperature measurements using CHEOPS light curves [2021, MNRAS, 506, 306](#)
SWAYNE, MAXTED, TRIAUD, SOUSA, BROEG *ET AL.*
- [23] TOI-1338: TESS' First Transiting Circumbinary Planet [2020, AJ, 159, 253](#)
KOSTOV, OROSZ, FEINSTEIN, WELSH, CUKIER *ET AL.*