

Christopher James Manser

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Education

- **(2014 - 2018)** *University of Warwick, Coventry, CV4 7AL, UK*: PhD in Astronomy supervised by Professor Boris Gänsicke. Funded by ERC.
- **(2010 - 2014)** *University of Warwick, Coventry, CV4 7AL, UK*: MPhys Physics integrated masters degree: First Class (86% average).

Publications

First Author

- Manser, C. J., et al. in prep. to submit to MNRAS, *The frequency of gaseous discs at white dwarfs*.
- [Manser, C. J., et al. 2019, Science, 364, 66, A planetesimal orbiting within the debris disc around a white dwarf. **Press coverage:** <https://www.altmetric.com/details/58538868/news>](#)
- [Manser, C. J., et al. 2016b, MNRAS, 462, 1461, Another one grinds the dust: variability of the planetary debris disc at the white dwarf SDSS J104341.53+085558.2.](#)
- [Manser, C. J., et al. 2016a, MNRAS, 455, 4467, Doppler imaging of the planetary debris disc at the white dwarf SDSS J122859.93+104032.9. **PR: \[eso.org/public/unitedkingdom/news/eso1544/\]\(http://eso.org/public/unitedkingdom/news/eso1544/\)**](#)
- [Manser, C. J., & Gänsicke B. T. 2014, MNRAS, 442, L23, Spectroscopy of the enigmatic short-period cataclysmic variable IR Com in an extended low state.](#)

Co-Author

- Wyrzykowski, L. et al. 2019, submitted to A&A, *Gaia16aye - First binary microlensing event in the northern galactic disk*.
- [Gentile-Fusillo, N., et al. 2019, MNRAS, 482, 4570, The Gaia Data Release 2 catalogue of white dwarfs and a comparison with SDSS.](#)
- [Izquierdo, P. et al. 2018, MNRAS, 481, 703, Fast spectrophotometry of WD 1145+017.](#)
- [Fagrelius, P., et al. 2018, PASP, 130, 025005, ProtoDESI: Risk reduction experiment for the Dark Energy Spectroscopic Instrument.](#)
- [Vaduvescu, O., et al. 2018, A&A, 609, A105, 250 one-opposition Near Earth Asteroids recovered by the EURONEAR with the Isaac Newton Telescope.](#)
- [Rebassa-Mansergas, A., et al. 2017, MNRAS, 472, 4193, The white dwarf binary pathways survey - II. Radial velocities of 1453 FGK stars with white dwarf companions from LAMOST DR4.](#)
- [DESI collaboration, 2016b, arXiv:1611.00037v2, The DESI Experiment Part II: Instrument Design.](#)
- [DESI collaboration, 2016a, arXiv:1611.00036v2, The DESI Experiment Part I: Science, Targeting, and Survey Design.](#)
- [Rebassa-Mansergas, A., et al. 2016, MNRAS, 463, 1137, The age-metallicity relation in the solar neighbourhood from a pilot sample of white dwarf-main sequence binaries.](#)

Conference presentations

Talks

- *A planetesimal orbiting a white dwarf on a two hour period* : Presented at the EuroWD17: 21st European White Dwarf Workshop (2018 Jul 23 - 27) at the University of Warwick, UK.
- *Selecting white dwarfs as standard stars in DESI* : Presented at the DESI collaboration meeting (2018 May 23-25) in Tucson, Arizona.
- *A planetesimal orbiting a white dwarf on a two hour period* : Presented at the UK exoplanet meeting (2018 March 21-23) at the University of Oxford.
- *Variability in planetary debris discs at white dwarfs* : Seminar talk in the iPLEX seminars (2017 Dec 8) at UCLA, California.
- *White dwarf and < 100 pc Target Selection* : Presented at the DESI collaboration meeting (2017 Jun 19 - 23) at LBNL Berkeley, California.
- *White dwarf flux calibration* : Presented at the DESI collaboration meeting (2017 Jun 19 - 23) at LBNL Berkeley, California.
- *Gaseous debris discs around white dwarfs* : Presented at the Planetary systems beyond the main sequence II conference (2017 Mar 5 - 10) at Technion, Israel.
- *Spectroscopy of SDSS J1228+1040* : Presented at the EuroWD16: 20th European White Dwarf Workshop (2016 Jul 25 - 29) at the University of Warwick, UK.

Posters

- *Spectroscopic follow-up of white dwarfs in the era of Gaia* : Presented at the EuroWD17: 21st European White Dwarf Workshop (2018 Jul 23 - 27) at the University of Warwick, UK.
- *The first velocity space image of a planetary debris disc orbiting a white dwarf* : Presented at the Extreme Solar Systems III conference (2015 Nov 29 - Dec 4) in Kona, Hawaii.

Community Service

- Participated in the 2018 ESO DPR experiment reviewing proposals.
- HST Mid-Cycle 25 Round 2 GO proposal reviewer.
- HST Mid-Cycle 25 Round 1 GO proposal reviewer.
- Member of the LOC for the EuroWD16: 20th European White Dwarf Workshop.

Experience

Research

- **DESI (2016-)** Working with Professor Boris Gänsicke on the Dark Energy Spectroscopic Instrument (DESI) that will be mounted on the 4m Mayall telescope at Kitt Peak. Tasks include attending meetings, generating simulated spectra, applying model spectra to fit white dwarfs for the extraction of basic parameters as well as flux calibration, and running simulations of the survey.
- **PhD (2014 - 2018)** Investigating remnant planetary systems around white dwarfs, focusing mainly on the debris discs observed at a small subset of systems. Supervised by Professor Boris Gänsicke.
- **Final Year Project (2013/2014)** Searching for circumbinary planets in SuperWASP photometric data via eclipse timing variations. Supervised by Professor Don Pollacco.
- **IOP Undergraduate Research Bursary funded summer project (2013)** A 10 week project analysing spectra from SDSS in search of accreting white dwarfs. Supervised by Professor Boris Gänsicke.

Skills

- Computing/Programming: Python, SQL, some C knowledge. Day to day use of linux machines. Experience with Doppler tomography.
- Data Reduction: Proficient with the ESO Reflex pipeline for the X-Shooter and UVES instruments, and the Ultracam/Ultraspex pipeline.
- Observing experience: Experienced with time resolved spectroscopy and photometry, as well as hardware testing and functionality. Observed at the WHT on ISIS, the GTC on OSIRIS in visitor mode, the INT with both IDS and WFC, and on the 4m Mayall telescope at Kitt Peak on ProtoDESI.

Teaching

- Have done examination marking for the 1st year "Classical Mechanics and Relativity" module.
- Experienced with the Warwick University planetarium for astronomy outreach at primary schools.
- Demonstrated and marked lab books for the 2nd year astronomy laboratory sessions.
- Taught revision sessions for the Physics Society, and produced a revision guide for the 3rd year "Cosmology" module.

Achievements

Successful PI-ed proposals

- WHT ISIS (service), (2017), *Spectroscopic monitoring of gaseous debris discs around white dwarfs.*
- VLT X-SHOOTER, P100-103 (2017), *Investigating the inherent variability of gaseous debris discs at white dwarfs.*
- J-PLUS, (2017A), *Pilot study to find Ca II Infrared triplet emitters using photometry alone.*
- VLT X-SHOOTER, P99-102 (2016), *Additional monitoring of the white dwarf SDSSJ1228+1040: A highly dynamical gaseous disc host.*
- HST COS, Cycle 23-25 (2015), *A Highly Dynamical Debris Disk in an Evolved Planetary System.*

Successful Col-ed proposals (selection)

- GTC OSIRIS (2017) 42-GTC25/18A, *Confirming the spectroscopic detection of a planetesimal in close orbit around the white dwarf SDSS J1228+1040.*
- HST COS, Cycle 25 (2017), *Extreme evolved solar systems (EESS).*
- WHT ISIS (service), (2017), *The return of a gaseous debris disc around a white dwarf.*
- Hale Telescope, TAP (2017B), *Investigating the variability of gaseous debris disks around white dwarfs.*
- ING International Time Program (2016B & 2017A), *Evolved planetary systems: A new window into the architecture and composition of other worlds.*
- VLT UVES, P95-98 (2014), *Monitoring the real-time evolution of debris discs around two white dwarfs.*

Prizes

- Awarded prize for best MPhys masters project in final year of degree (2014).
- Awarded 'Giving to Warwick prize' for outstanding academic performance in second year (2012).

Interests

Hobbies

- Enjoy playing the board game Go (Rank 15 Kyu).
- Play competitive team-based games online.

Executive positions in University Societies

- Treasurer of the Warwick Go Society (2014-2016)
- Vice President of the Warwick Physics Society (2013/2014)
- Academic Coordinator of the Warwick Physics Society (2012/2013)