HUGH P. OSBORN

PERSONAL INFORMATION

Born: 16 April 1991 · *UK & Irish (EU) citizen*

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RESEARCH EXPERIENCE

Feb 26 – **Assistant Professor**

Bern

· SNSF-funded starting grant on statistical analyses of the architectures, radii, masses & atmospheres of Neptune-like planets.
· Lead of group including two PhDs and a PostDoc.

Jun 24 – Jan 26 **Advanced PostDoc**

ETH Zurich

· Leading project on detection of exoplanets in TESS data using classical & machine learning techniques.
· Exploring atmospheric characterisation of mini-Neptune exoplanets using JWST.

Apr 25 – Jan 26 **CHEOPS Data Analyst**

CHEOPS

· Monitoring & characterisation of CHEOPS CCD
· Developing improvements on data reduction of the CHEOPS mission
· Preparing technical case for second mission extension.

Nov 19 – Jan 26 **CHESS Post-Doctoral Fellowship**

MIT & Bern

· Independent research at the interface of the ESA/Cheops and NASA/TESS space telescopes
· Acting as a bridge between the Cheops GTO and the NASA/TESS science team.
· Managing key science projects within the ESA/Cheops GTO – This project has so-far lead to ∼20 new exoplanets with eight published papers & four more in prep.
· Exploring direct links between characterised mini-Neptune exoplanets and theory e.g. planetary formation & interior structures.
· Managing synergistic observations between Cheops, TESS & PLATO.
Nov 19 – Dec 24: 100%; Jan 24 – May 24: 80%; June 24 – Mar 25: 50%; Apr 25 – Jan 26: 20%

Jun 17 – Oct 19 **Post-Doctoral Researcher**

Marseille

· Developing ranking procedures for transiting exoplanet candidates for ESA PLATO.
· Testing new ranking methods, including machine learning and classical metric-based approaches, with both Kepler, TESS & Simulated PLATO planet populations.
· Continuing search & follow-up of long-period planets transiting bright stars in K2 & TESS.

Sep 13 – Jun 17 **Doctoral Research Student**

Warwick

· Leading the exoplanet search in K2 campaigns 1 to 8, producing more than 100 candidates and six publications.
· Analysing the detection of long-period planets in ground-based (WASP) & space-based (TESS & K2) transit surveys, as well as for long-duration eclipses caused by dusty companions.

EDUCATION

Sept 2013–Jun 2017 **University of Warwick, UK**

PhD

Title: "Long Period Worlds from Exoplanet Transit Surveys"
Supervisor: Prof. Don Pollacco *Funding*: Chancellor's Scholarship

Sept 2009–Jun 2013 **University College London, UK**

MSci

First Class Honours · School: Earth Sciences
Courses studied: Astro (40%), geology (35%), climate (16%), maths (4%), computing (4%).
MSci Research Thesis (2012-2013): *The Observability of Transiting Exoplanet Atmospheres with the EChO Space Telescope* Advisor: Prof. Giovanna Tinetti

RECENT PUBLICATIONS

First-author (2020-)

Rapid Classification of TESS Planet Candidates with Convolutional Neural Networks (2020)

A hot mini-Neptune in the radius valley orbiting solar analogue HD 110113 (2021)

Uncovering the true periods of the young sub-Neptunes orbiting TOI-2076 (2022)

Two Warm Neptunes transiting HIP9618 revealed by TESS & Cheops (2023)

The TOI-1812 Overture: 3 planets traversing the gas giant regime (2026, in prep)

CHEOPS Duos: A population small planets on long orbits recovered with CHEOPS photometry (2026, in prep)

Others

First author publications: 8 · Co-author publications: >100 ·
Nature/*Science* publications : 6 · Total citations: >5000 · H-index: 44
Full publication list available at: hughosborn.co.uk/pubs

OTHER SKILLS & EXPERIENCE

Meetings

Conference presentations including 30 years of 51 Peg (OHP, France, 2025), Transits to Trends (New Mexico, 2025), ESP25 (Marseille, 2025), TESS Sci Con 3 (MIT, 2024), Exoplanets V (Leiden, 2024), PLATO ESP24 (Catania, 2024), TOE3 (Porto, 2023), etc.

Recent seminars at Cambridge, DLR, Bern, Geneva, UCL, Leiden, Granada (since 2022)

Splinter session orgniser at TESS SciConf (2021); Session chair at Exo IV (May, 2022); SOC member for PLATO ESP2024 & TESS Science Conference 3 (both 2024).

Proposals

PI & Co-I on many successful proposals for exoplanet detection & characterisation (e.g. CARMENES, PFS, HARPS-N, LCO, HARPS, ESPRESSO, etc.).

Computing

Python (advanced); Machine Learning; Bayesian Model fitting; LaTeX; Unix; Data Visualisation; Microsoft Office; simple video, audio & image editing

Teaching

3yrs as Astronomy Lab Demonstrator (Warwick) & 2yr as Physics lab Demonstrator (Bern).

Led workshop on Data Visualisation the the Warwick Astronomy Knowledge Exchange programme & workshop on transit modelling at Bern (2022).

Supervision

Second supervisor to the PhD project of David Degen (ETH, 2023-2027).

Mentored PhD students as lead of Cheops GTO projects.

Lead semester project at ETH Zurich.

Supervised a MSci final year project and summer intership for a student at Bern (2022-23).

Supervised two undergraduate projects using TESS & K2 data at MIT (Summer 2021).

Awards

Warwick Chancellor's Scholarship; UCL Dean's List; UCL Jackson Lewis Scholarship

Languages

English (native); French (C1); German (A1/Beginner)

OTHER INFORMATION

2011 to Present · Fellow of the Royal Astronomical Society
2018 to Present · Associate member of the Next Generation Transit Survey (NGTS)
2023 to Present · ESA Community Scientist on the *PLATO* Science Working Team
2023 to Present · Deputy coordinator of one of the three *CHEOPS* GTO "Axes"
2025 to Present · Editorial board member for RAS "Tecniques & Instruments" journal
2025 to Present · Spokesperson for planetary architectures within Swiss "Planet-S" network

Outreach

Creator & co-presenter of *Exocast*, a podcast focused on communicating concepts of exoplanet research with a wider audience which has registered 100,000+ downloads.

Experienced in astronomy outreach talks with participation in numerous sci-comm events such as Astronomy on tap Boston & Bern (including organisational roles), at schools & amateur astro societies

Written many articles & blogs conveying exoplanetary science to a general audience.

Referees

Prof. Didier Queloz · ETH Zürich · dqueloz@ethz.ch
Prof. George Ricker · Massachussets Institute of Technology · grr@mit.edu
Prof. Don Pollacco · University of Warwick · D.Pollacco@warwick.ac.uk

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