

CLÉMENCE FONTANIVE

CSH Research Fellow

University of Bern, Switzerland

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RESEARCH INTERESTS

- Detection and characterisation of extra-solar planets and brown dwarfs
- Formation, physical properties, and atmospheres of planetary-mass objects
- Statistics and demographics of stellar and substellar binary populations
- High-resolution imaging and astrometry with ground- and space-based observations

EDUCATION

- Jun 2019 **PhD in Astronomy.** Institute for Astronomy, University of Edinburgh, UK
PhD Thesis supervised by Prof. B. Biller
Brown Dwarfs and Giant Exoplanets: Bridging Observations and Theory with Statistical Methods
- Jul 2015 **MSci in Physics** (4-yr undergraduate degree). Department of Physics, Imperial College London, UK
Masters Thesis supervised by Dr. I. Mueller-Wodarg
Refining General Circulation Models of Titan's Upper Atmosphere with Cassini Data

RESEARCH EXPERIENCE

- 2022–2025 **iREx Trottier Fellow.** Institute for Research on Exoplanets, Université de Montréal, Canada
- 2019–2022 **CSH Fellow.** Center for Space and Habitability, University of Bern, Switzerland
- 2015–2019 **PhD Student.** Institute for Astronomy, University of Edinburgh, UK
- 2014–2015 **Masters Student.** Department of Physics, Imperial College London, UK
- Summer 2013 **Research Intern.** Institut d'Astronomie et d'Astrophysique, Université Libre de Bruxelles, Belgium

TEACHING EXPERIENCE

- 2015–2019 **Teaching Assistant.** Department of Physics and Astronomy, University of Edinburgh, UK
Leading tutorials, workshops and lab sessions for undergraduate physics and astronomy course
- Tutor: Discovering Astronomy, Introductory Astrophysics, Physics 1A/1B
 - Demonstrator: Scientific Programming, Computer Simulations, Observational Astronomy

AWARDED TELESCOPE TIME

- HST **3 Programs as PI:** 61 orbits — GO 14686 (WFC3), GO 15201 (WFC3), GO 16229 (WFC3)
PI programs worth over \$400 000 USD funds from Space Telescope Science Institute
1 Program as co-I: 132 orbits (WFC3)
- JWST 2 Programs as co-I: 48.2 hours (NIRSpec, NIRCам)
- Gemini **1 Program as PI:** 4 hours — GN-2017B-Q-40 (NIRI)
1 Program as co-I: 4.4 hours (GNIRS)
- VLT **1 Program as PI:** 4.5 hours — 099.C-0728 (NACO)
6 Programs as co-I: 146 hours (SPHERE, GRAVITY, SOFI)
5 nights of visitor mode SPHERE observations for the SPHERE Consortium

GRANTS AND AWARDS

- Sep 2022 **Trottier Fellowship.** Prize research fellowship, iREx, Université de Montréal
Jan 2020 **Winton Astronomy Thesis Prize 2019.** Award from Winton Capital Management
Sep 2019 **CSH Fellowship.** Prize research fellowship, CSH, University of Bern
Apr 2019 **Principal's Go Abroad Fund.** £350 conference travel grant from University of Edinburgh
May 2018 **SUPA Short-Term Visit Scheme.** £2500 funding for a 5-week visit to NASA Goddard
Oct 2017 **Physics and Astronomy Poster Competition.** First prize winner, University of Edinburgh
Jul 2017 **Other Worlds Laboratory Travel Grant.** \$2500 USD for 1-month visit to UCSC

PROFESSIONAL SERVICE

- 2021 **CSH Fellowships Search Committee.** Center for Space and Habitability, Switzerland
2021 **External Reviewer for HST Time Allocation Committee.** Space Telescope Science Institute
2020–present **Software Developer of the SIMPLE Database** for brown dwarfs and directly-imaged planets
2020–present **Review Editor for Frontiers in Astronomy and Space Sciences.** Exoplanet Section
2020–present **Member of NCCR PlanetS.** Swiss National Centre of Competence in Research
2019–present **CSH Management Committee Member.** Center for Space and Habitability, Switzerland
2019–present **Referee for the AAS Journals:** The Astronomical Journal, The Astrophysical Journal Letters
2016–present **Member of the SPHERE Consortium.** Science Team for the large SHINE observing program

OUTREACH AND DEI ACTIVITIES

- Sep 2021 **Women in NCCR Video Campaign** promoting female researchers. NCCR PlanetS, Switzerland
Jun 2021 **First Author of Petition** for Codes of Conduct in Astronomy Collaborations [[Link](#)]
Apr 2021 **Radio Interview.** Radio Télévision Suisse (CQFD), Switzerland [[Link](#)]
2021–present **Member of IDEEA** – Inclusion, Diversity, and Equity in European Astronomy
Feb 2021 **Public Lecture for the IAU Women in Astronomy Day.** HEPAC, Marrakech, Morocco
Feb 2021 **Radio Interview.** France Culture (La Méthode Scientifique), France [[Link](#)]
Jan 2021 **Radio Interview.** Radio Télévision Suisse (CQFD), Switzerland [[Link](#)]
2020–2022 **Consultant on Media Articles.** Inside Science, Futura Sciences, Espiloon, Pour la Science
Dec 2020 **Writer of Press Release Article.** University of Bern & NCCR PlanetS, Switzerland [[Link](#)]
2017–2020 **Event Speaker and Organiser for Astronomy on Tap.** Edinburgh, UK & Bern, Switzerland
2017–2018 **Public Lectures for Astronomy Winter Talks.** Royal Observatory Visitor Centre, Edinburgh, UK
2015–2018 **Volunteer and Speaker at the Annual ROE Open Days.** Royal Observatory of Edinburgh, UK

SUMMARY OF PUBLICATION RECORD

- **Published Refereed Journal Papers: 6 first-author**, 4 second-author, 17 others (+2 submitted)
- **504 Citations in total**, 95 to first-author publications, *h*-index: 12
- **45 Abstracts** on SAO / NASA Astrophysical Data System (ADS)

ORAL PRESENTATIONS

May 2022	Invited Seminar	ESO Hypatia Colloquium 2022, European Southern Observatory (online)
Apr 2022	Contributed Talk	NCCR PlanetS Junior Researchers' Assembly (JURA) III, Switzerland
Feb 2022	Invited Seminar	Exoplanet Seminar Series, Geneva Observatory, Switzerland (online)
Nov 2021	Invited Talk	ESA Jamboree, European Space Agency (online)
Nov 2021	Invited Seminar	Astronomy Seminar Series, University of Hawaii, USA (online)
Oct 2021	Invited Talk	Star-Planet Connection Workshop, European Southern Observatory, Chile (online)
Mar 2021	Invited Seminar	ESPF Seminar Series, Space Telescope Science Institute, USA (online)
Mar 2021	Invited Seminar	Exoplanets & Habitability Seminars, ETH Zurich, Switzerland (online)
Feb 2021	Invited Seminar	Astronomy Colloquium, University of Michigan, USA (online)
Jan 2021	Contributed Talk	Exoplanets Orbits & Dynamics Workshop, University of Liège, Belgium (online)
Dec 2020	Invited Seminar	CENTRA Seminar Series, University of Lisbon, Portugal (online)
Nov 2020	Invited Seminar	Leicester Astrophysics Seminars, University of Leicester, UK (online)
Aug 2020	Invited Seminar	Exeter Astrophysics Seminars, University of Exeter, UK (online)
Oct 2019	Invited Seminar	CSH Seminar, Center for Space and Habitability, Bern, Switzerland
Aug 2019	Contributed Talk	Extreme Solar Systems IV Conference, Reykjavik, Iceland
Jan 2019	Invited Talk	CSH Symposium, University of Bern, Switzerland
Oct 2018	Invited Seminar	ROE Colloquium, Royal Observatory of Edinburgh, UK
Oct 2018	Contributed Talk	SPHERE General Science meeting, Amsterdam, The Netherlands
May 2018	Invited Seminar	Extrasolar Planets Seminar, NASA Goddard Space Flight Center, USA
May 2018	Contributed Talk	Chesapeake Bay Area Exoplanet Meeting, Carnegie DTM, USA
Feb 2018	Invited Seminar	Astronomy Seminars, Stockholm University, Sweden
Nov 2017	Contributed Talk	11th GAPS Progress Meeting, Università degli Studi di Milano, Italy
Nov 2017	Invited Seminar	INAF Seminar, Osservatorio di Padova, Italy