

JANOSZ DEWBERRY

CURRICULUM VITAE

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SCIENTIFIC EMPLOYMENT

- 2020-Present **Postdoc**, *Canadian Institute for Theoretical Astrophysics (CITA)/Caltech*
Postdoctoral Fellow at CITA
Visiting Postdoc at Caltech (2021-2022, hosted by Prof. Fuller)
- 2019-2020 **Postdoc**, *Tsung-Dao Lee Institute (TDLI)/Cornell University*
Postdoctoral Fellow at TDLI
Visiting Research Associate at Cornell (2019-2020, hosted by Prof. Lai)

EDUCATION

- 2014-2019 **University of Cambridge**, *PhD in Applied Math and Theoretical Physics*
(conferred July 2019)
Advisors: Dr. Henrik Latter, Prof. Gordon Ogilvie
MASt (~MSci) for completing [Part III of the Mathematical Tripos](#)
- 2009-2013 **Vassar College**, *BA in Astronomy (major), Mathematics (major), Physics (minor)*
Advisor: Prof. Debra Elmegreen
Graduated Sigma Xi, with honors in Astronomy and Mathematics

PUBLICATIONS

11. Mankovich, C. R., **Dewberry, J.**, & Fuller, J. 2023, PSJ, accepted.
[“Saturn’s Seismic Rotation Revisited”](#)
10. **Dewberry, J.** 2023, MNRAS, accepted.
[“Dynamical tides in Jupiter and other rotationally flattened planets and stars with stable stratification”](#)
9. **Dewberry, J.**, Mankovich, C. R., & Fuller, J. 2022, MNRAS, 516, 358
[“Impacts of zonal winds on planetary oscillations and Saturn ring seismology”](#)
8. **Dewberry, J.**, & Lai, D. 2022, ApJ, 925, 124
[“Dynamical tidal Love numbers of rapidly rotating planets and stars”](#)
7. **Dewberry, J.**, Mankovich, C. R., Fuller, J., Lai, D., & Xu, W. 2021, PSJ, 2, 198
[“Constraining Saturn’s interior with ring seismology: effects of differential rotation and stable stratification”](#)
6. **Dewberry, J.**, Latter, H. N., Ogilvie, G. I., & Fromang, S. 2020, MNRAS, 497, 451
[“HFQPOs and discoseismic mode excitation in eccentric, relativistic discs. II. Magnetohydrodynamic simulations”](#)
5. **Dewberry, J.**, Latter, H. N., Ogilvie, G. I., & Fromang, S. 2020, MNRAS, 497, 435
[“HFQPOs and discoseismic mode excitation in eccentric, relativistic discs. I. Hydrodynamic simulations”](#)
4. **Dewberry, J.**, Latter, H. N., & Ogilvie, G. I. 2019, MNRAS, 483, 1609
[“Quasi-periodic oscillations, trapped inertial waves and strong toroidal magnetic fields in relativistic accretion discs”](#)

3. **Dewberry, J.**, Latter, H. N., Ogilvie, G. I. 2018, MNRAS, 476,4085
"Quasi-periodic oscillations and the global modes of relativistic, MHD accretion discs"
2. Elmegreen, B., Elmegreen, D., Almeida, J., Muñoz-Tuñón, C., **Dewberry, J.**, Putko, J., Teich, Y., & Popinchalk, M. 2013, ApJ, 774, 86
"Massive clumps in local galaxies: Comparisons with high-redshift clumps"
1. Elmegreen, D., Elmegreen, B., Almeida, J., Muñoz-Tuñón, C., Putko, J., & **Dewberry, J.** 2012, ApJ, 750,95
"Local tadpole galaxies"

SCIENTIFIC COMMUNICATION

Colloquia/Seminars

- 03/2023 KIPAC Tea, **Stanford University**
- 03/2023 National Institute of Physics Seminar, **University of the Philippines**
- 02/2023 Blackboard Seminar, **CITA** (contributed)
- 11/2022 TASTY Seminar, **Univ. of Toronto**
- 10/2022 Carnegie Tea, **Carnegie Observatories**
- 07/2022 Princeton Coffee, **Princeton**
- 06/2022 [Institute of Astronomy Seminar](#), **KU Leuven**
- 04/2022 CIERA Science Happy Hour, **Northwestern**
- 04/2022 Math/Data Science Colloquium, **Pacific Univ.**
- 03/2022 Center for Integrative Planetary Science (CIPS) Seminar, **UC Berkeley**
- 08/2021 Research Methodology Seminar, **CITA** (contributed)
- 11/2020 [Astrophysics Seminar](#), **CITA**
- 06/2020 Department of Astronomy Colloquium, **Shanghai Jiao Tong Univ.**
- 11/2019 Astrophysics Lunch, **Cornell**
- 10/2018 Astrophysics Lunch, **UC Santa Barbara** (contributed)
- 10/2018 Geophysical & Astrophysical Fluid Dynamics Seminar, **UC Santa Cruz**
- 10/2018 Theoretical Astrophysics and Relativity (TAPIR) Seminar, **Caltech**
- 07/2018 IoA X-ray Astronomy Group Seminar, **Cambridge**

Contributed Conference Presentations

- 08/2022 Stars, to mark the 80th birthday of Peter Eggleton, **Cambridge**
- 08/2022 CITA 2022 Planet Day, **CITA**
- 04/2022 53rd Annual Meeting of the DDA, **CCA**
- 03/2022 Caltech Center for Comparative Planetary Evolution Meeting, **Caltech**
- 12/2021 AGU 2021 Fall Meeting, **virtual**
- 12/2021 New paradigms for Radiatively Efficient Accretion Disks, **CCA**
- 10/2021 53rd Annual Meeting of the DPS, **virtual**

- 06/2021 Canada 2021 Planet Day, **Univ. of Victoria/virtual**
05/2021 Distorted Astrophysical Discs Conference, **Cambridge/virtual**
10/2020 Accretion 2020: Disk Reflection, Warm Corona, Sims, **Fudan Univ./virtual**
01/2019 AAS Meeting 233, **Seattle, WA** (dissertation talk)
07/2018 Planets, Stars and Discs: A Golden Age for Particle and Gas Dynamics, **Oxford**

Outreach Talks

- 06/2022 [Caltech Stargazing and Lecture Series](#), **Caltech** (speaker)
09/2019 [Caltech Stargazing and Lecture Series](#), **Caltech** (panel participant)
04/2018 Churchill College CHUTalk Seminar Series, **University of Cambridge**
11/2016 Cambridge Department of Mathematics Open Day, **University of Cambridge**

Posters

- 07/2022 TASC6/KASC13 Asteroseismology Workshop, **KU Leuven/virtual**
06/2022 Workshop on Juno Prime Mission Results, **Caltech**
07/2016 Simulations & Modelling of Relativistic MHD Accretion Discs, **Oxford**
07/2016 Astro Fluid 2016, **IAP**

FELLOWSHIPS AND AWARDS

- 2020 **CITA Postdoctoral Fellowship**
2019 **Tsung-Dao Lee Postdoctoral Fellowship**
2019 **Cambridge Philosophical Society Studentship**
2017 **Smith-Knight & Rayleigh-Knight Prize** (2nd place)
2015 **Cambridge International Scholarship**
2013-2018 **De Golier Fellowship(s)**
2012 **De Golier Prize** (highest academic average in undergraduate class)

TEACHING & MENTORING

Graduate Research Mentor

- 2022-Present Working with Samantha Wu (PhD candidate, Caltech) on research related to tidal interactions between rapidly rotating M dwarfs and exoplanets

Undergraduate Research Mentor

- 2021-Present Co-mentoring undergraduates Kanah Smith (Univ. of Toronto) and Niharika Namulla (Trent Univ.) in research related to planetary orbits around tidally evolving binary stars. Research outcomes include:
- Fluency in coding with Python
 - Familiarity with N-body simulations and code parallelization
 - Novel numerical and statistical results related to planetary stability

Undergraduate Course Supervisor

- 2017-2018 Supervised Cambridge undergraduates taking [Part II Astrophysical Fluid Dynamics](#) (course covering fluid dynamics, gravitation, stellar structure, supernovae, shocks, waves, instabilities, magnetohydrodynamics, and plasma physics). Supervisions involved:
- Bi-weekly, three-on-one tutoring sessions
 - Lectures expanding on material covered in class
 - Grading/exam preparation

ACADEMIC SERVICE & PROFESSIONAL EXPERIENCE

Academic & Committee Roles

- 2020-2021 **Seminar Committee Member, CITA**
Scheduled/organized/ran twice-weekly astrophysics seminars
- 2020-2021 **Astro-Ph Committee Member, Univ. of Toronto**
Scheduled/organized/ran Astro-Ph coffee meetings
- 2016-2017 **Academic Officer, Churchill College, Cambridge**
Scheduled/organized/ran weekly interdisciplinary talks, symposium
- Summer 2011 **Undergraduate Researcher, Vassar College**
Surveyed local, irregular and star-forming galaxies
- 2009-2010 **Observatory Assistant, Vassar College**
Operated telescope, collected data for research courses

Academic Journal Referee

- *Monthly Notices of the Royal Astronomical Society*
- *The Planetary Sciences Journal*

Volunteering

- 2019, 2022 **Volunteer**, Astronomy on Tap Los Angeles
- 2022 **Volunteer**, Death Valley Dark Sky Festival
- 2019 **Volunteer**, Caltech Stargazing and Lecture Series
- 2017-2018 **Volunteer tour guide**, Univ. of Cambridge Department of Mathematics
- 2017-2018 **Volunteer**, University of Cambridge Open Day
- 2014-2020 **Volunteer speaker**, Oregon elementary and middle schools