

# Dang Pham (Phạm Cao Đặng)

2000 Colorado Ave, Rm. E226  
Boulder, CO 80309

dang.pham@colorado.edu  
<https://dangpham.ca>

---

## EDUCATION

### University of Toronto

PhD in Astronomy & Astrophysics  
Advisor: Professor Hanno Rein  
Thesis: Small Bodies, Small Stars: The Fate of Comets

2020 - 2025

**Cornell University**, College of Arts and Sciences  
Bachelor of Arts in Physics, Mathematics

2016 - 2020

---

## RESEARCH POSITIONS

<b>McCray Postdoctoral Fellow</b> , University of Colorado Boulder	2025 - Present
<b>Graduate Student</b> , University of Toronto	2020 - 2025
<b>Research Associate</b> , Department of Astronomy, Cornell University	2020
<b>Research Intern</b> , Max-Planck-Institut für Astronomie	2019

---

## AWARDS & HONORS

Richard McCray Prized Postdoctoral Fellowship	2025 - Present
Ontario Graduate Scholarship	2024
School of Graduate Studies Conference Grant	2024
University of St. Michael's College Junior Fellowship	2023 - 2025
International Student Fellowship for Excellence in Doctoral Studies	2022
Frank S. Hogg Memorial Fellowship	2021
David A. Dunlap Department of Astronomy & Astrophysics Entrance Awards	2020, 2021
Summer Research Fellowship, Max-Planck-Institut für Astronomie	2019
Dean's List, Cornell University.	2018, 2019

---

## PUBLICATIONS

View on the [NASA Astrophysics Data System](#) or [Google Scholar](#).

12 total, 8 as first to third author.

### FIRST TO THIRD AUTHOR

12. M. Poon, H. Rein, **D. Pham**, [2024, OJAp, 7, 109](#).  
A potential exomoon from the predicted planet obliquity of  $\beta$  Pictoris b.
11. **D. Pham**, M. Hopkins, et al., [2024, ApJ, 977, 232](#).  
Fast Radio Bursts and Interstellar Objects.
10. **D. Pham**, H. Rein, [2024, MNRAS, 530, 2526](#).  
Polluting White Dwarfs with Oort Cloud Comets.
9. **D. Pham**, H. Rein, D.S. Spiegel, [2024, OJAp, 7, 1](#).  
A new timestep criterion for N-body simulations.
8. J. Li, L. Kaltenegger, **D. Pham**, D. Ruppert, [2024, MNRAS Letters, 527, L137](#).  
Characterization of extrasolar giant planets with machine learning.
7. **D. Pham**, L. Kaltenegger, [2022, MNRAS Letters, 513, L72](#).

Follow the water: finding water, snow, and clouds on terrestrial exoplanets with photometry and machine learning.

6. D. Pham, L. Kaltenegger, 2021, MNRAS, 504, 6106.  
Color Classification of Earth-like Planets with Machine Learning.
5. M. Schlecker, D. Pham, R. Burn, et al., 2021, A&A, 656, A73.  
The Determinism of Global Planet Formation Models.

#### CONTRIBUTING AUTHOR

4. M. Poon et al. (including D. Pham), 2025, ApJ Letters, 994, L48.  
Early Evidence for Isotropic Planetary Obliquities in Young Super-Jupiter Systems .
3. S. Yang et al. (including D. Pham), 2025, submitted to ApJ, arXiv e-prints.  
TIME Commissioning Observations: I. Mapping Dust and Molecular Gas in the Sgr A Molecular Cloud Complex at the Galactic Center .
2. V. Butler et al. (including D. Pham), 2024, SPIE Proceedings, 13102, 156.  
TIME, the Tomographic Ionized-carbon Mapping Experiment: an update on design, characterization, and data from the 2022 commissioning observations.
1. A. Harding et al. (including D. Pham), 2018, MNRAS, 475, 79.  
Predicting Gravitational Lensing by Stellar Remnants.

#### RESEARCH SUPERVISION

---

Skyler McCabe and Blake Carver-Adames	2026 - Present
• <i>Project:</i> Implementing gravitational structures in REBOUND.	
• Awarded the department of Astrophysical & Planetary Science Undergraduate Research Fellowship (\$3000).	
Thomas Alexander	2025 - Present
• <i>Project:</i> Oort clouds after white dwarf natal kick.	
Mac Turner (Computer Science undergraduate)	2024 - 2025
• <i>Project:</i> Machine learning, loss scaling laws, and noise generation for exoplanet spectra.	
• Co-supervised with Lisa Kaltenegger.	

#### TEACHING EXPERIENCE

---

##### COURSE INSTRUCTOR

- ASTR 5835: Seminar in Planetary Science – Interstellar Objects 2026

##### TEACHING ASSISTANCE

- AST 424: Introduction to Astrophysical Research 2025
- AST 320: Introduction to Astrophysics 2022, 2025
- AST 325, AST Co2: Practical Astronomy 2022 - 2024
- AST 221: Stars & Planets 2024
- AST 251: Life on Other Worlds (non-major course) 2022 - 2024
- AST 101 & 201: Introduction to Astronomy (non-major courses) 2021 - 2022

#### PHYSICS DIRECTED READING PROGRAM

- Supervised two undergraduate students (second and fourth year) on reading projects on cosmology and general relativity at the University of Toronto. 2022-2023

#### LEADERSHIP & SERVICE

---

Canadian Young Physicists' Tournament (CaYPT), Juror/Juror Chair	2022 - 2024
Climate of the Department Committee, Member	2022 - 2024

<b>AstroTours</b> , Co-Director	2022 - 2023
Graduate Astronomy Students Association, Member	2020 - 2025
Summer Undergraduate Research Program ( <b>SURP</b> ) Organizing Committee	2023
Local Organizing Committee: SDSS V, CITA Planet Day	2022
Cornell Society of Physics Students ( <b>SPS</b> ), President	2016 - 2020

## PUBLIC OUTREACH

---

### SERVICE

Solar eclipse workshops for the Toronto Public Library system	2024
Toronto Astro On Tap, Volunteer	2022 - 2023
AstroTours, Volunteer	2021-2023
Cornell Astronomical Society, Volunteer	2016 - 2020

### OUTREACH TALKS

5. [Teaching the Universe](#), An overview on exoplanet research for high school teachers 2025
4. Toronto Public Library, Solar Eclipse workshops 2024
3. Toronto Public Library, The Fate of Comets 2024
2. AstroTours, The Fate of Comets ([YouTube](#)) 2024
1. University of Toronto — Family Day Outreach Event, The Oort Cloud 2023

## TALKS & PRESENTATIONS

---

### TALKS AT INSTITUTIONS

17. Lunch seminar, University of Colorado, Boulder 2025
16. Seminar, University of California, Los Angeles 2024
15. Talk, Harvey Mudd College 2024
14. Planetary Science Seminar, California Institute of Technology 2024
13. Astro Coffee, Institute of Advanced Study 2024
12. Exoplanet Seminar, Princeton University 2024
11. Lunch talk, Harvard Institute for Theory and Computation (Luncheon Talk) 2024
10. Talk, Massachusetts Institute of Technology 2024
9. Lunch seminar, University of Toronto 2024, 2025
8. Seminar, Institute of Science and Technology Austria 2024
7. Talk, University of Toronto (Statistics and Machine Learning) 2022

### CONFERENCES

6. REBOUND Conference 2024
5. Division of Dynamical Astronomy, Meeting #55 2024
4. 23rd European White Dwarf Conference 2024
3. Protostar & Planets VII (poster) 2023
2. Emerging Researchers in Exoplanet Science VII 2022
1. Great Lakes Exoplanet Area Meeting, Ohio State University 2022