Dang Pham (Pham Cao Đăng) 🕩



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EDUCATION

University of Toronto

8/2020 - 8/2025 (Anticipated)

PhD in Astronomy & Astrophysics Advisor: Professor Hanno Rein Thesis: *The Fate of Comets*

Cornell University, College of Arts and Sciences

2016 - 2020

Bachelor of Arts in Physics, Mathematics

Selected Awards & Honors

Ontario Graduate Scholarship	2024 - 2025
University of St. Michael's College Junior Fellow	2023 - 2025
International Graduate Student Fellowship for Excellence in Doctoral Studies	2022
David A. Dunlap Department of Astronomy & Astrophysics Entrance Awards	2020, 2021
Summer Research Fellowship, Max-Planck-Institut für Astronomie	2019
First place (team), 2017 Cornell Mathematical Contest in Modeling	2017

Leadership & Service

Juror/Juror Chair, Canadian Young Physicists' Tournament (CaYPT)

2022 - 2024

Evaluated and provided feedback for physics projects by high school students.

Climate of the Department Committee

2022 - 2024

• Advocated for the department's summer undergraduate research program (SURP) to admit students more equitably, for better international students' participation and representation, and for better physical working space.

AstroTours Co-Director 2022 - 2023

- Organized monthly public outreach talks.
- Managed and advocated for organizational budget with department.

Graduate Astronomy Students Association (Course & Qualifying Exams, Faculty Hiring)

2020 - 2024

- Communicated with graduate chair on qualifying exams and course interests.
- Interviewed faculty candidates.

Astronomy Summer Undergraduate Research Program (SURP)

2023, 2024

- · Organized weekly events, talks and seminars.
- · Speaker: Grad school admissions and grad school life
- Speaker: Overview of exoplanetary science

Statistics and MachIne LEarning (SMILE) Organizing Committee

2023 2022

Local Organizing Committee: SDSS V, CITA Planet Day Cornell Society of Physics Students. President, Secretary, Webmaster

2016 - 2020

• Participated in outreach events, such as Sagan Walk and Expand Your Horizons. As president, managed a budget of \$5000, increased funding by \$1000; initiated events to increase first-year students participation in Physics.

Publications

View on the NASA Astrophysics Data System or Google Scholar.

10 total, 6 as first or second author.

FIRST AND SECOND AUTHOR

10. **D. Pham**, M. Hopkins, et al., submitted to ApJ.

Fast Radio Bursts and Interstellar Objects

9. **D. Pham**, H. Rein, 2024, MNRAS, 530, 2526.

Polluting White Dwarfs with Oort Cloud Comets.

8. **D. Pham**, H. Rein, D.S. Spiegel, 2024, OJAp, 7, 1.

A new timestep criterion for N-body simulations.

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, H. Rein, **D. Pham**, submitted to OJAp.

A potential exomoon from the predicted planet obliquity of β Pictoris b

3. J. Li, L. Kaltenegger, D. Pham, D. Ruppert, 2024, MNRAS Letters, 527, L137.

Characterization of extrasolar giant planets with machine learning.

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.

Talks & Presentations

14.	California Institute of Technology	2024
13.	Institute of Advanced Study	2024
12.	Princeton University	2024
11.	Harvard-Smithsonian Institute for Theory and Computation	2024
10.	Massachusetts Institute of Technology	2024
9.	University of Toronto	2024
8.	REBOUND Conference	2024
7.	Institute of Science and Technology Austria	2024
6.	23rd European White Dwarf Workshop	2024
5.	Division of Dynamical Astronomy, Meeting #55	2024
4.	Protostar & Planets VII (poster)	2023
3.	Great Lakes Exoplanet Area Meeting, Ohio State University	2022
2.	Emerging Researchers in Exoplanet Science VII	2022
1.	University of Toronto, Statistics and Machine Learning	2022

OUTREACH

Public talk on comets and stellar evolution for AstroTours	2024
Solar eclipse workshops for the Toronto Public Library system	2024
Volunteer for the Toronto Astro On Tap	2022 - 2023
AstroTours	2021 - 2023

• Volunteered for monthly public outreach talks. Gave a public talk in August 2024 on PhD thesis.

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Cornell Astronomical Society

AST 251: Life on Other Worlds (non-major course)

AST 101, 201: Introduction to Astronomy (non-major courses)

2016 - 2020

2022 - 2024

2021, 2022

• Weekly Friday nights open house; gave tours of the Fuertes Observatory for visitors and operated telescopes including a 100 years old, 12-inches Brashear refractor.

OUTREACH TALKS

O CIREMEN THERE	
3. Toronto Public Library, Don Mills Branch	2024
The Fate of Comets	
2. AstroTours	2024
The Fate of Comets (YouTube)	
1. University of Toronto, Family Day Outreach Event	2023
The Oort Cloud	
MENTORSHIP	
Graduate Peer Mentor, University of Toronto	2022
Undergraduate Mentor, University of Toronto	2021
Peer Mentor, Cornell University	2019
TEACHING ASSISTANCE	
AST 424: Introduction to Astrophysical Research	2024 - 2025
AST 325, AST Co2: Practical Astronomy	2022 - 2024
AST 320: Introduction to Astrophysics	2022
AST 221: Stars & Planets	2024