Adiv Paradise

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Toronto, ON M5S 3H4
paradise@astro.utoronto.ca

EDUCATION

University of Minnesota - Twin Cities *May 2014*
B.S. in Astrophysics and Physics, *magna cum laude*

University of Toronto *Started September 2015*
Ph.D. Candidate in Astrophysics

RESEARCH PROJECTS

PhD Thesis Project: The Nature of Habitable Zone Climates and their Observability
Supervisor: Dr. Kristen Menou *University of Toronto*
September 2016 – Fall 2020 *Astronomy & Astrophysics*

First-Year PhD Project: Efficient Beamforming with the CHIME Radio Telescope: The Search for Fast Radio Bursts
Supervisor: Dr. Keith Vanderlinde *University of Toronto*
June 2016 – August 2016 *Astronomy & Astrophysics*

First-Year PhD Project: Unstable Climates in the Habitable Zone
Supervisor: Dr. Kristen Menou *University of Toronto*
September 2015 – May 2016 *Astronomy & Astrophysics*

Post-Baccalaureate Project: A Faster Way to Compute Implicit Fluid Transport
Supervisor: Dr. Paul Woodward *University of Minnesota*
October 2014 – August 2015 *Physics & Astrophysics*

Undergraduate Thesis Project: An Efficient Poisson Gravity Solver
Supervisor: Dr. William Dai *Los Alamos National Laboratory: 2014*
Supervisor: Dr. Paul Woodward *University of Minnesota*
September 2013 – May 2014 *Physics & Astrophysics*

Undergraduate Research Assistant: Electromagnetic Waves in the Solar Wind — Data Acquisition and Analysis
Supervisor: Dr. Aaron Breneman *University of Minnesota*
June 2011 – May 2014 *Physics & Astrophysics*

TEACHING EXPERIENCE

University of Toronto Department of Astronomy & Astrophysics
Teaching Assistant *September 2015 – Present*

Camp Galil
Camp Counselor *June 2010 – July 2010*

Beth Jacob Congregation
Teaching Assistant *September 2006 – May 2010*

JOURNAL PUBLICATIONS

1. **Adiv Paradise** and Kristen Menou. GCM Simulations of Unstable Climates in the Habitable Zone. *The Astrophysical Journal*, 848(1):33, 2017
2. Kiyoshi W. Masui, J. Richard Shaw, Cherry Ng, Kendrick M. Smith, Keith Vanderlinde, and **Adiv Paradise**. Algorithms for FFT Beamforming Radio Interferometers. October 2017. *Submitted to The Astrophysical Journal.*
3. Cherry Ng, Keith Vanderlinde, **Adiv Paradise**, Peter Klages, Kiyoshi Masui, Kendrick Smith, Kevin Bandura, Patrick Joseph Boyle, Matt Dobbs, Victoria Kaspi, Andre Renard, J Richard Shaw, Ingrid Stairs, and Ian Tretyakov. CHIME FRB: An application of FFT beamforming for a radio telescope. *XXXIIth URSI General Assembly & Scientific Symposium (URSI GASS) 2017*, August 2017
4. Daniel Tamayo, Ari Silburt, Diana Valencia, Kristen Menou, Mohamad Ali-Dib, Cristobal Petrovich, Chelsea X. Huang, Hanno Rein, Christa van Laerhoven, **Adiv Paradise**, Alysa Obertas, and Norman Murray. A Machine Learns to Predict the Stability of Tightly Packed Planetary Systems. *The Astrophysical Journal*, 832(2):L22, November 2016
5. A. W. Breneman, C. A. Cattell, K. Kersten, **Paradise, A.**, S. Schreiner, P. J. Kellogg, K. Goetz, and L. B. Wilson. STEREO and Wind observations of intense cyclotron harmonic waves at the Earth's bow shock and inside the magnetosheath. *Journal of Geophysical Research: Space Physics*, 118(12):7654–7664, 2013
6. A. Breneman, C. Cattell, J. Wygant, K. Kersten, L. B. Wilson, L. Dai, C. Colpitts, P. J. Kellogg, K. Goetz, and **Paradise, A.** Explaining polarization reversals in STEREO wave data. *Journal of Geophysical Research: Space Physics*, 117(4):1–8, 2012

SELECTED CONFERENCE PROCEEDINGS

1. **A. Paradise** and K. Menou. The Habitability of Frozen Worlds (Talk). Emerging Researchers in Exoplanet Sciences III, June 2017
2. **A. Paradise** and P. Woodward. Toward a new implicit scheme using Riemann invariants (Talk). JINA-CEE GNASH: The anomalous metal-poor stars and convective-reactive nuclear astrophysics, May 2015
3. **A. Paradise** and K. Menou. Stable weathering equilibria in snowball planets in the habitable zone (Poster). Emerging Researchers in Exoplanet Sciences II, June 2016
4. **A. Paradise**, P. Woodward, and W. Dai. Development and Optimization of a Fast Poisson Solver using a Red-Black Multigrid Approach in 2-D (Poster). LANL Computing and Information Technology Student Mini Showcase, July 2014
5. **A. Paradise**, A. W. Breneman, C. A. Cattell, K. Kersten, S. Schreiner, P. J. Kellogg, K. Goetz, and L. B. Wilson, III. STEREO and Wind Observations of Intense Cyclotron Harmonic Waves at the Earth's Bow Shock (Poster). AGU Fall Meeting, December 2013

MEDIA ENGAGEMENT

CBC Radio: Short interview after total solar eclipse. August 21, 2017. Radio.

CBC News: Interview. "These 3 Toronto students chased the solar eclipse all the way to Oregon". Malone Mullin: August 21, 2017. Print. `http://www.cbc.ca/news/canada/toronto/eclipse-chasers-1.4254841`

CBC Toronto News: TV interview about upcoming total solar eclipse. August 20, 2017. Television.

U of T News: Interview. "Road Trip! U of T students and faculty chase total solar eclipse". Romi Levine: August 11, 2017. Print. `https://www.utoronto.ca/news/road-trip-u-t-students-and-faculty-chase-total-solar-eclipse`

UNIVERSITY OF TORONTO EXTRA-CURRICULARS

University of Toronto Graduate Student Union
General Council Member — *2017–2018*

University of Toronto Libraries "Science Literacy Week"
Human Book: 'What is an Astronomer?' — September 2017

Graduate Astronomy Student Association
UTGSU Representative — *2017–2018*
Co-President — *2016–2017*
Course Committee — *2016–2017*
Weekly Tea — *2016–2017*
Mediation Committee — *2015–2017*
Plant Watering — *2015–2016*

AstroTours Astronomy Outreach Events
Volunteer — *2015–Present*

Dunlap Institute for Astronomy & Astrophysics
"Ask an Astronomer" Email Service — *2016–Present*
Sidewalk Astronomy — *Summers 2016 & 2017*
Astronomy On Tap Volunteer — *2015–Present*

Department of Astronomy & Astrophysics
Department Values Statement Committee — *November 2017–Present*

University of Toronto Intramurals
Ultimate Frisbee — *2015–2017*
Softball — *Summer 2017*
Soccer — *Fall 2016*

University of Toronto Swing Dance Club
Member — *September 2015–August 2016*

OTHER EXTRA-CURRICULARS

AAAS "Book Smart" Book Club: 'The Hunt for Vulcan' by Thomas Levinson
Expert Facilitator for Book Discussion — *2016*

Independent School District 197 School Board
Strategic Redesign Advisory Committee — *2010–2011*

Minnesota Association for Zombie Enthusiasts
Officer *2014–2015*
Member *2011–2014*

University of Minnesota Swing Dance Club
Member *Spring 2014*

University of Minnesota Ballroom Dance Club
Member *2013–2014*

Twin Cities Ultimate League
Ultimate Frisbee Player *2012–2013*

University of Minnesota Bands
University Band; French Horn *2012–2014*
North Star Band; French Horn *Fall 2012*
Maroon & Gold Band; French Horn *Spring 2011*

AWARDS

Lachlan Gilchrist Fellowship 2017
4500 CAD

Centre for Planetary Sciences Graduate Fellowship 2015
5000 CAD/year; 2 years

LANL Outstanding Technical Presentation Award 2014

LANL Spot Award for service to the Lab 2014
100 USD

Hagstrum Award for Physics Research 2014
1000 USD

Harriet B. & Esther Snyder Merrill Scholarship 2011
1000 USD/year; 3 years

University of Minnesota Gold Scholar Award 2010
7500 USD/year; 4 years

Bentson Family Scholarship 2010
5000 USD/year; 4 years

National Merit Scholarship 2010
2500 USD

CID, Inc. Scholarship 2010
1000 USD

LANGUAGES

English (Native)
Hebrew (Native)
French (Intermediate)