Kaitlin M. Kratter

Contact Information	Dept. of Astronomy University of Arizona 933 N Cherry Ave Tucson, AZ, 85721 Citizenship: U.S.A.	*Phone:* (520) 621-0260 *E-mail:* kkratter 'at' arizona.edu *WWW:* http://lavinia.as.arizona.edu/~kkratter Languages: English (native), French (basic), Spanish (basic)

Research Interests: Astrophysical fluids, binaries, computational astrophysics, dynamics, star and planet formation

Education

University of Toronto, Toronto, ON, Canada

Ph.D., Astronomy and Astrophysics, Nov. 2010

- Dissertation Topic: "Accretion Disks and the Formation of Stellar Systems"
- Advisor: Christopher D. Matzner

Barnard College, Columbia University, New York, New York USA

B.A., Astrophysics, May 2005

- graduated Magna Cum Laude, Phi Beta Kappa

Employment

Associate Professor, University of Arizona, Tucson, AZ, USA	2019 - present
Affiliate member Applied Math Interdisciplinary Graduate Program,	2018 - present
Assistant Professor, University of Arizona, Tucson, AZ, USA	2014 - 2019
Hubble Fellow, JILA / CU Boulder, Boulder, CO, USA	2012 - 2013
ITC Postdoctoral Fellow, Harvard-Smithsonian CfA, Cambridge, MA, USA	2010 - 2012

Honors and Awards

Blitzer Teaching Award	Spring 2022
Stromlo Distinguished Visitor, Canberra, Australia,	Summer 2018
Visiting Scholar, MPIA, Heidelberg, Germany	Summer 2017
Visiting Scientist, UCSC Kavli Workshop,	June 2016
Tinsley Visiting Scholar (UT Austin)	May 2016
Hubble Fellowship	2012
CASCA Plaskett Award for Best PhD Thesis	2011
Ontario Graduate Scholarship	2009 - 2010
Connaught Fellowship, University of Toronto	2005 - 2009
Phi Beta Kappa, Barnard College, Columbia University	April, 2005
Henry Boerse Prize in Physics, Barnard College	May, 2005

Publication Metrics

Metrics: H-index: 42
Total Citations: 5,625
Papers > 100 citations: 15
ORCID ID: 0000-0001-5253-1338

Supervision Experience

Graduate Students:
Jackson Zariski (UofA 2022-) Adam Sutherland (UofA, 2016-2019), Rachel Smullen (UofA, PhD 2020), Michael Hammer (UofA, PhD 2021), Sarah Morrison (UofA, PhD 2017), Anjali Tripathi (*co-advisor*, Harvard Univ., 2011-2014), Dr. Diego Muñoz (*co-advisor* Harvard Univ. PhD 2013)
Postdocs:
Leonardo Krapp (2019-), Cristobal Petrovich (2019-2020) (fellowship), Maxwell Moe (2015-) (Einstein Fellow), Jordan Stone (2019-2020) (Hubble Fellow), Robin Dong (2016-2018) (fellowship), Diego Muñoz (2017), Min-Kai Lin (2014-2016) (fellowship)
Undergraduates:

Chris Kilday (2022), Paarth Parab (2022-2023), Max Cabrera (2022-2023), Keith Baka (2020-2021), Trevor Smith (2019-2020), Jimena Stephenson (2018-2019), Quadry Chance (2017-2018), Kirk Hendricks (2016), Reagan Leimbach (2015), Jorge Encinas (2015), Terrance Pat (2014) Peter Jumper (2012)

Courses Taught

- ASTR 400, Stellar Astrophysics, $\sim$ 20 students
  Fall 2023
- ASTR 250, Introduction to Astrophysics, $\sim$ 30 students
  Fall 2022
- ASTR 300A, Mechanics in Astrophysics, $\sim$ 30 students
  Fall 2016, Fall 2017, Fall 2018, Fall 2019, Spring 2021
- ASTR 203, Stars: Tier 2 Nats Course, $\sim$120 students
  Spring 2015, Fall 2015, Spring 2017, Fall 2018
- ASTR/PTYS/PHYS 589, Topics in Theoretical Astrophysics $\sim$10 students
  Spring 2014

Course Development

- ASTR 300A: Redesigned curriculum, updated course structure for Collaborative Learning Strategies Classrooms, created 100+ pg typed note set

Service

Insitutional (selected, recent)

- Director of Graduate Studies 2021-
- Member of Steward Advisory Council 2021-2023
- Chair of Postdoctoral Fellowship Hiring Committee 2020, 2023
- Undergraduate Advisor 2019-
- Graduate Admissions 2013-2018

Peer review and Time Allocation Committees:

- Panel Member, KITP Advisory Board, 2023-
- Chair, JWST Cycle 1 Exoplanet, TAC, 2021
- Panel Member, National Academy of Sciences Decadal Survey, 2019
- Referee: Nature, The Astrophysical Journal, Monthly Notices of the Royal Astronomical Society
- Grant Review: NASA, Deutsche Forschungsgemeinschaft (German Science Foundation)
- Time Allocation Committee: Hubble Space Telescope, XSEDE (NSF supercomputing)
- *Guest Editor:* Annual Reviews in Astronomy and Astrophysics 2016-2017

Conference Organization

- *Organizer*: KITP Workshop and conference on Circumbinary Disks, Spring 2022
- *Chair*: SPF 2: Star and Planet Formation in the Southwest, March 2018
- *Chair*: SPF 1: Star and Planet Formation in the Southwest, March 2015
- *Member:* Extreme Solar Systems III, Dec, 2015
- *Member:* Lorentz Center Conference, Leiden, Netherlands: Massive Binaries, June 2015

Outreach / Media

- *Public Lecture:* "Beyond the Solar System, Exotic Exoplanet," Grand Canyon National Park, Nov 2023
- *Media Appearance:* Arizona Science, Arizona Public Media (NPR affiliate) May 2023
- *Lecture:* "Better together: the importance of binary stars in astronomy." Columbia University, July 2020
- *Public Lecture:* Pima County HOA, February 2020
- *Media Appearance:* Carnegie Origins Institute Panelist, Washington DC, March 2018

- *Media Appearance:* BBC/Discovery Channel Documentary, Juno — 2018
- *Lecture:* UofA Warrior Scholar Program — July 2017, 2018
- *Media:* Arizona Daily Star, College of Science Special — 2018
- *Judge:* Astronomical League National Young Astronomer Award — 2015-2018
- *Lecture:* "Planets in our Solar System and Beyond," Kartchner Caverns, — Oct. 2017
- *Public Lecture:* Kavli Institute for Theoretical Astrophysics, — March 2017
- *Media Appearance:* Arizona Science, AZPM (radio) — Nov. 2016
- *Lecture:* "Exploring the architecture of planetary systems," Pima College, — Nov 2014.
- *Panel:* "Careers in Science: Girls Need Their Space," Flandrau Center, — March 2014

Conferences / Scholarly Presentations (recent)

- *Colloquium:* "The formation of stars and planets", Joint Munich Colloquium, June 2023
- *Colloquium:* "The formation of stars and planets", CCA, New York, March 2023
- *Colloquium:* "A continuous theory of Stellar System Formation," IAS, September 2022
- *Invited, Conf:* "The Role of Gravitational Instability in Planet Formation," Gravitational Instability, Leicester, UK, September 2022
- *Colloquium:* "From Planets to Binaries," Tsinghua, March 2022
- *Invited, Conf:* "The impact of multiplicity on disks and planets," MIAPP Conference, June 2021
- *Colloquium:* "Companions across the mass ratio spectrum," Univ. New Mexico, October 2020
- *Seminar:* " The origin of binary stars and their planets," Columbia University, April 2020
- *Colloquium:* " The origin of binary stars and their planets," University of Pittsburgh, April 2020
- *Colloquium:* "Binary Stars in the Big Data Era," Carnegie Observatory, Nov. 2018
- *Seminar:* "Binary Stars in the Big Data Era," CITA, Oct, 2018
- *Invited, Conf:* "Binary Formation," GMT Conference, Honolulu, Sept 2018
- *Invited, Conf:* "Planets in Binaries," Unsolved Problems in Astrophysics, Budapest, Hungary, July 2018
- *Invited, Conf:* "Stellar Multiplicity" Exoplanets orbiting hot stars, Nashville, TN, June 2018
- *Invited, Conf:* "Planet Formation" Workshop on Planets in discs around young stars, Madrid, Spain, June 2018
- *Seminar:* "The tools for stellar and planetary dynamics", Applied Math Seminar, University of Arizona, Jan 2018
- *Colloquium:* "Three Puzzles in Star and Planet Formation, Harvard-Smithsonian CfA, Sept. 2017
- *Lecture:* "The formation of microlensing planets," Sagan Workshop, Pasadena, CA, August, 2017
- *Colloquium:* "Problems in Star and Planet Formation, Lund University, Sweden, June 2017
- *Colloquium:* "Disks and Binaries", Princeton University, April 2017
- *Invited Review, Conf:* "The theory of planets in binaries," Cambridge Conference on Binaries, Cambridge, UK, July 2016