

Kaitlin M. Kratter

CONTACT INFORMATION	Dept. of Astronomy University of Arizona 933 N Cherry Ave Tucson, AZ, 85721 Citizenship: U.S.A.	<i>Phone:</i> (520) 621-0260 <i>E-mail:</i> kkratter 'at' email.arizona.edu <i>WWW:</i> http://lavinia.as.arizona.edu/~kkratter <i>Languages:</i> English (native), French (conversational)
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 Affiliate member Applied Math Interdisciplinary Graduate Program, Assistant Professor , University of Arizona, Tucson, AZ, USA Hubble Fellow , JILA / CU Boulder, Boulder, CO, USA ITC Postdoctoral Fellow , Harvard-Smithsonian CfA, Cambridge, MA, USA	2019 - present 2018 - present 2014 - 2019 2012 - 2013 2010 - 2012
HONORS AND AWARDS	Stromlo Distinguished Visitor, Canberra, Australia, Visiting Scholar, MPIA, Heidelberg, Germany Visiting Scientist, UCSC Kavli Workshop, Tinsley Visiting Scholar (UT Austin) Hubble Fellowship CASCA Plaskett Award for Best PhD Thesis Ontario Graduate Scholarship Connaught Fellowship, University of Toronto Phi Beta Kappa, Barnard College, Columbia University Henry Boerse Prize in Physics, Barnard College	Summer 2018 Summer 2017 June 2016 May 2016 2012 2011 2009 - 2010 2005 - 2009 April, 2005 May, 2005
SUPERVISION EXPERIENCE	<i>Graduate Students:</i> Adam Sutherland (UofA, 2016-2019), Michael Hammer (UofA, 2015-), Sarah Morrison (UofA, PhD 2017), Dr. Rachel Smullen (UofA, PhD 2020), Anjali Tripathi (<i>co-advisor</i> , Harvard Univ., 2011-2014), Dr. Diego Muñoz (<i>co-advisor</i> Harvard Univ. PhD 2013) <i>Postdocs:</i> 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) <i>Undergraduates:</i> Keith Baka (2020-), Trevor Smith (2019-2020), Quadry Chance (2017-2018), Kirk Hendricks (2016), Reagan Leimbach (2015), Jorge Encinas (2015), Terrance Pat (2014) Peter Jumper (2012)	
GRANT MANAGEMENT	• ERC Marie Skłodowska-Curie grant 2019-2024 (DUSTBUSTERS), US node PI, \$0, secondment host, 5 yrs • NASA TCAN 2019-2022 Institutional PI \$477,560 1 person month/yr, 1 postdoc, 3 yrs	

- Heising-Simons Foundation 2018-2019, **PI**, \$36,666, 1 month faculty, 2 month postdoc, 1 month student
- Research Corporation for Science Advancement, 2018-2020 **PI**, \$10,000, 2 postdoc months
- NASA ATP 2018-2021, **PI**, \$496,373, 1 person month/yr, 1.5 postdoc yrs, 3 student yrs
- NASA ATP 2017-2020, Co-I \$300,904 (to U of A), 1.5 person month/yr, 3 yrs, 1.5 student yrs
- NASA ATP 2015-2018, Co-I, \$49,596 (to U of A), 1 person month/yr, 3 years
- NSF AAG 2014-2017, **PI**, \$287,066, 2 person months / yr, 3 years, 2 student yrs
- Research Corporation for Science Advancement, conference grant, \$25,000, 2014

Student and Post-doc award sponsorship/advising:

- Hubble Fellowship 2019-2020, Jordan Stone
- NESSF 2015-2016, Sarah Morrison, \$30,000
- Einstein Fellowship 2015-2018, Maxwell Moe, \$338,333
- NSF GRFP 2015-2018, Michael Hammer
- NSF GRFP 2014-2017, Rachel Smullen

COURSES TAUGHT

- ASTR 300A, Mechanics in Astrophysics, ~ 30 students
Fall 2016, Fall 2017, Fall 2018, Fall 2019
- ASTR 203, Stars: Tier 2 Nats Course, ~120 students
Spring 2015, Fall 2015, Spring 2017, Fall 2018
- ASTR/PTYS/PHYS 589, Topics in Theoretical Astrophysics ~10 students
Spring 2014

SERVICE

Peer review and Time Allocation Committees:

- 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, scheduled 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

- *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*: “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
- *Invited Scholar*: Kavli Summer Workshop on Exoplanet Atmospheres, UC Santa Cruz, June-July 2016
- *Seminar*: “Gravitational Instability in Star and Planet Formation,” UT Austin, May 2016
- *Colloquium*: “Planets in Binary Star Systems,” UT Austin, May 2016
- *Invited, Conf*: “Planets in Binaries,” Workshop on Young Disks and Planetary Systems, Sant Cugat, Spain, April 2016
- *Invited, Conf*: “Binaries in Massive Star Formation,” From Stars to Massive Stars, Gainesville, FL, April 2016
- *Lecture*: “The formation of wide orbit planets,” Sagan Workshop, Pasadena, CA, July, 2015
- *Lecture*: “Planets and Gravitational Instability?” Sagan Workshop, Pasadena, CA, July, 2015
- *Seminar*: “Planets in Binaries,” Institute for Advanced Studies, Princeton, NJ, June 2015
- *Colloquium*: “What we can learn from planets in binaries,” Hertzberg Insitute for Astrophysics, Victoria, Canada, April 2015
- *Colloquium*: Univ. Massachusetts, Amherst, Dec. 2014
- *Colloquium*: MIT, Dec. 2014
- *Seminar*: “What we can learn from planets in binary systems,” Yale Center for Astronomy and Astrophysics, New Haven, CT, Nov 2014
- *Invited, Conf*: “The boundary of planet formation and binary formation,” Circumstellar Disks and Planet Formation, Univ. of Michigan, Oct, 2014
- *Colloquium*: LPL, University of Arizona, Sep. 2014
- *Colloquium*: University of Toronto, Sep. 2014
- *Invited, Conf*: “The connection between star formation and planet formation, including binaries,” The Disk in Connection to Planet Formation, Beijing, China, August 2014
- *Invited, Conf*: “Circumbinary Planets: Unsolving Problems in Astrophysics,” Unsolved Problems in Astrophysics, Budapest, Hungary July 2014
- *Invited Plenary, Conf*: “Planet (or binary?) formation around cool stars,” Cool Stars 18, Flagstaff, AZ, May 2014
- *Invited, Conf*: “Circumbinary Planets: At home and abroad,” Division of Dynamical Astronomy, Philadelphia, PA, April 2014
- *Invited Review, Conf*: “The Formation of Herbig Ae/Be Stars,” The Missing Link in Star Formation, Santiago, Chile, April, 2014
- *Colloquium*: Lowell Observatory, Feb. 2014

PUBLICATIONS

Metrics: H-index: 28, Total Citations: 3,163, Papers > 100 citations: 10

† Student Advised

‡ Non-advisee grad student

*Post-doc advised

*

References

- Canup, R. M., **Kratter**, K. M., Neveu, M., 2020. On the Origin of the Pluto System. Pluto System After New Horizons, University of Arizona Space Science Series, Book Chapter, in press
- Vargas-Salazar, I., Oey, M. S., Barnes, J. R., et al. 2020, A Search for In-Situ Field OB Star Formation in the Small Magellanic Cloud arXiv:2009.12379, ApJ, accepted
- ‡Poovelil, V. J., Zasowski, G., Hasselquist, S., et al. 2020, Open Cluster Chemical Homogeneity Throughout the Milky Way. arXiv:2009.06777, ApJ, accepted
- Petrovich, C., Muñoz, D. J., **Kratter**, K. M., et al. 2020, A disk-driven resonance as the origin of high inclinations of close-in planets, arXiv:2008.08587, ApJL, accepted
- ‡Mazzola, C. N. and 20 colleagues 2020. The Close Binary Fraction as a Function of Stellar Parameters in APOGEE: A Strong Anti-Correlation With α Abundances. arXiv e-print, ApJ, accepted
- *Krapp, L., Youdin, A. N., **Kratter**, K. M., Benítez-Llambay, P. 2020. Dust Settling Instability in Protoplanetary Discs. Monthly Notices of the Royal Astronomical Society doi:10.1093/mnras/staa1854.
- Rainot, A. and 15 colleagues 2020. The Carina High-Contrast Imaging Project for massive Stars (CHIPS) I. Methodology and proof of concept on QZ Car ($\equiv$ HD93206). 2020, A&A, 640, A15
- †Smullen, R. A., **Kratter**, K. M., Offner, S. S. R., Lee, A. T., Chen, H. H.-H. 2020. The highly variable time evolution of star-forming cores identified with dendrograms. 2020, MNRAS, 497, 4517
- Wyse, R. F. G., Moe, M., **Kratter**, K. M. 2020. The rich lack close neighbours: the dependence of blue-straggler fraction on metallicity. Monthly Notices of the Royal Astronomical Society 493, 61096118.
- Tobin, J. J. and 35 colleagues 2020. The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Orion Protostars. II. A Statistical Characterization of Class 0 and Class I Protostellar Disks. The Astrophysical Journal 890.
- Muñoz, D. J., Lai, D., **Kratter**, K., Miranda, R. 2020. Circumbinary Accretion from Finite and Infinite Disks. The Astrophysical Journal 889.
- Krumholz, M. R., Ireland, M. J., **Kratter**, K. M. 2020. Dynamics of small grains in transitional discs. 2020, MNRAS, doi:10.1093/mnras/staa2546
- Kollmeier, J. A. and 22 colleagues 2019. Astro2020 APC White Paper: Theoretical Astrophysics 2020-2030. arXiv e-prints.
- *Moe, M., **Kratter**, K. M. 2019. Impact of Binary Stars on Planet Statistics – I. Planet Occurrence Rates, Trends with Stellar Mass, and Wide Companions to Hot Jupiter Hosts. arXiv e-prints.
- Lee, A. T., Offner, S. S. R., **Kratter**, K. M., †Smullen, R. A., Li, P. S. 2019. The Formation and Evolution of Wide-orbit Stellar Multiples In Magnetized Clouds. The Astrophysical Journal 887.
- Tobin, J. J. and 33 colleagues 2019. The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Orion Protostars. I. Identifying and Characterizing the Protostellar Content of the OMC-2 FIR4 and OMC-2 FIR3 Regions. The Astrophysical Journal 886.

- †Sutherland, A. P., **Kratter**, K. M. 2019. Instabilities in multiplanet circumbinary systems. *Monthly Notices of the Royal Astronomical Society* 487, 32883304.
- ‡Wagner, K., Apai, D., **Kratter**, K. M. 2019. On the Mass Function, Multiplicity, and Origins of Wide-orbit Giant Planets. *The Astrophysical Journal* 877.
- Kounkel, M. and 28 colleagues 2019. Close Companions around Young Stars. *The Astronomical Journal* 157.
- Tobin, J. J. and 15 colleagues 2019. Astro2020 Science White Paper: The Formation and Evolution of Multiple Star Systems. arXiv e-prints.
- *Moe, M., **Kratter**, K. M., Badenes, C. 2019. The Close Binary Fraction of Solar-type Stars Is Strongly Anticorrelated with Metallicity. *The Astrophysical Journal* 875.
- Zhang, Y. and 8 colleagues 2019. Dynamics of a massive binary at birth. *Nature Astronomy* 3, 517523.
- ‡McCann, J., Murray-Clay, R. A., **Kratter**, K., Krumholz, M. R. 2019. Morphology of Hydrodynamic Winds: A Study of Planetary Winds in Stellar Environments. *The Astrophysical Journal* 873.
- Zhang, Y. and 9 colleagues 2019. An Ordered Envelope-Disk Transition in the Massive Protostellar Source G339.88-1.26. *The Astrophysical Journal* 873.
- †Hammer, M., Pinilla, P., **Kratter**, K. M., Lin, M.-K. 2019. Observational diagnostics of elongated planet-induced vortices with realistic planet formation time-scales. *Monthly Notices of the Royal Astronomical Society* 482, 36093621.
- Rainot, A. and 14 colleagues 2019. Towards constraints on massive galactic stars using VLT/SPHERE with high-contrast imaging. *Memorie della Societa Astronomica Italiana* 90, 366.
- Dupuy, T. J., Brandt, T. D., **Kratter**, K. M., Bowler, B. P. 2019. A Model-independent Mass and Moderate Eccentricity for β Pic b. *The Astrophysical Journal* 871.
- †Morrison, S. J., **Kratter**, K. M. 2018. Gap formation in planetesimal discs via divergently migrating planets. *Monthly Notices of the Royal Astronomical Society* 481, 51805188.
- Stone, J. M. and 35 colleagues 2018. The LEECH Exoplanet Imaging Survey: Limits on Planet Occurrence Rates under Conservative Assumptions. *The Astronomical Journal* 156.
- Tobin, J. J. and 10 colleagues 2018. The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Perseus Protostars. VI. Characterizing the Formation Mechanism for Close Multiple Systems. *The Astrophysical Journal* 867.
- Tychoniec, L. and 13 colleagues 2018. The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). IV. Free-Free Emission from Protostars: Links to Infrared Properties, Outflow Tracers, and Protostellar Disk Masses. *The Astrophysical Journal Supplement Series* 238.
- Segura-Cox, D. M. and 10 colleagues 2018. The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). V. 18 Candidate Disks around Class 0 and I Protostars in the Perseus Molecular Cloud. *The Astrophysical Journal* 866.
- Dupuy, T. J. and 8 colleagues 2018. The Hawaii Infrared Parallax Program. III. 2MASS J0249-0557 c: A Wide Planetary-mass Companion to a Low-mass Binary in the β Pic Moving Group. *The Astronomical Journal* 156.
- Monnier, J. D. and 78 colleagues 2018. Planet formation imager: project update. *Optical and Infrared Interferometry and Imaging VI* 10701.

- Bowler, B. P. and 13 colleagues 2018. Orbit and Dynamical Mass of the Late-T Dwarf GL 758 B. *The Astronomical Journal* 155.
- *Moe, M., **Kratter**, K. M. 2018. Dynamical Formation of Close Binaries during the Pre-main-sequence Phase. *The Astrophysical Journal* 854.
- Cox, E. G. and 8 colleagues 2017. Protoplanetary Disks in ρ Ophiuchus as Seen from ALMA. *The Astrophysical Journal* 851.
- Rainot, A. and 11 colleagues 2017. CHIPS: The Carina High-contrast Imaging Project of massive Stars. *The Lives and Death-Throes of Massive Stars* 329, 436436.
- ‡Baehr, H., Klahr, H., **Kratter**, K. M. 2017. The Fragmentation Criteria in Local Vertically Stratified Self-gravitating Disk Simulations. *The Astrophysical Journal* 848.
- †Smullen, R. A., **Kratter**, K. M. 2017. The fate of debris in the Pluto-Charon system. *Monthly Notices of the Royal Astronomical Society* 466, 44804491.
- †Hammer, M., **Kratter**, K. M., Lin, M.-K. 2017. Slowly-growing gap-opening planets trigger weaker vortices. *Monthly Notices of the Royal Astronomical Society* 466, 35333543.
- Kratter**, K. M. 2017. Constraints from Planets in Binaries. *Astrophysics and Space Science Library* 315.
- MacGregor, M. A. and 9 colleagues 2017. ALMA Measurements of Circumstellar Material in the GQ Lup System. *The Astrophysical Journal* 835.
- Tobin, J. J. and 11 colleagues 2016. A triple protostar system formed via fragmentation of a gravitationally unstable disk. *Nature* 538, 483486.
- †Smullen, R. A., **Kratter**, K. M., Shannon, A. 2016. Planet scattering around binaries: ejections, not collisions. *Monthly Notices of the Royal Astronomical Society* 461, 12881301.
- Kratter**, K., Lodato, G. 2016. Gravitational Instabilities in Circumstellar Disks. *Annual Review of Astronomy and Astrophysics* 54, 271311.
- Crepp, J. R. and 33 colleagues 2016. iLocator: a diffraction-limited Doppler spectrometer for the Large Binocular Telescope. *Ground-based and Airborne Instrumentation for Astronomy VI* 9908.
- Kraus, S. and 77 colleagues 2016. Planet Formation Imager (PFI): science vision and key requirements. *Optical and Infrared Interferometry and Imaging V* 9907.
- ‡Sallum, S. and 19 colleagues 2016. Imaging protoplanets: observing transition disks with non-redundant masking. *Optical and Infrared Interferometry and Imaging V* 9907.
- ‡Wagner, K. and 6 colleagues 2016. Direct imaging discovery of a Jovian exoplanet within a triple-star system. *Science* 353, 673678.
- *Lin, M.-K., **Kratter**, K. M. 2016. On the Gravitational Stability of Gravito-turbulent Accretion Disks. *The Astrophysical Journal* 824.
- †Morrison, S. J., **Kratter**, K. M. 2016. Orbital Stability of Multi-planet Systems: Behavior at High Masses. *The Astrophysical Journal* 823.
- Stone, J. M. and 11 colleagues 2016. Adaptive Optics imaging of VHS 1256-1257: A Low Mass Companion to a Brown Dwarf Binary System. *The Astrophysical Journal* 818.
- Tobin, J. J. and 10 colleagues 2016. The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). II. Multiplicity of Protostars in the Perseus Molecular Cloud. *The Astrophysical Journal* 818.

- Segura-Cox, D. M. and 10 colleagues 2016. The VLA Nascent Disk and Multiplicity Survey: First Look at Resolved Candidate Disks around Class 0 and I Protostars in the Perseus Molecular Cloud. *The Astrophysical Journal* 817.
- Dupuy, T. J. and 7 colleagues 2016. Orbital Architectures of Planet-hosting Binaries. I. Forming Five Small Planets in the Truncated Disk of Kepler-444A. *The Astrophysical Journal* 817.
- Cox, E. G. and 12 colleagues 2015. High-resolution 8 mm and 1 cm Polarization of IRAS 4A from the VLA Nascent Disk and Multiplicity (VANDAM) Survey. *The Astrophysical Journal* 814.
- Lee, K. I. and 20 colleagues 2015. Mass Assembly of Stellar Systems and Their Evolution with the SMA (MASSES). Multiplicity and the Physical Environment in L1448N. *The Astrophysical Journal* 814.
- ‡Sallum, S. and 16 colleagues 2015. Accreting protoplanets in the LkCa 15 transition disk. *Nature* 527, 342344.
- †Tripathi, A., **Kratter**, K. M., Murray-Clay, R. A., Krumholz, M. R. 2015. Simulated Photoevaporative Mass Loss from Hot Jupiters in 3D. *The Astrophysical Journal* 808.
- Tobin, J. J. and 11 colleagues 2015. Revolutionizing our View of Protostellar Multiplicity and Disks: The VLA Nascent Disk and Multiplicity (VANDAM) Survey of the Perseus Molecular Cloud. *EAS Publications Series* 75-76, 273276.
- Kratter**, K. M. 2015. Star formation: Sibling rivalry begins at birth. *Nature* 518, 173174.
- †Muñoz, D. J., **Kratter**, K., Vogelsberger, M., Hernquist, L., Springel, V. 2015. Stellar orbit evolution in close circumstellar disc encounters. *Monthly Notices of the Royal Astronomical Society* 446, 20102029.
- Tobin, J. J. and 13 colleagues 2015. The VLA Nascent Disk and Multiplicity (VANDAM) Survey of Perseus Protostars. Resolving the Sub-arcsecond Binary System in NGC 1333 IRAS2A. *The Astrophysical Journal* 798.
- †Muñoz, D. J., **Kratter**, K., Springel, V., Hernquist, L. 2014. Planet-disc interaction on a freely moving mesh. *Monthly Notices of the Royal Astronomical Society* 445, 34753495.
- Stassun, K. G., Scholz, A., Dupuy, T. J., **Kratter**, K. M. 2014. The Impact of Chromospheric Activity on Observed Initial Mass Functions. *The Astrophysical Journal* 796.
- Sana, H. and 14 colleagues 2014. Southern Massive Stars at High Angular Resolution: Observational Campaign and Companion Detection. *The Astrophysical Journal Supplement Series* 215.
- Bechter, E. and 19 colleagues 2014. The iLocator Doppler Spectrometer. Search for Life Beyond the Solar System. *Exoplanets, Biosignatures & Instruments*.
- Kratter**, K. M., Shannon, A. 2014. Planet packing in circumbinary systems. *Monthly Notices of the Royal Astronomical Society* 437, 37273735.
- Kratter**, K. M. 2013. Planet Formation: Knowing the Progenitors and the Progeny. *New Horizons in Astronomy (BASH 2013)*.
- Welsh, W. and 17 colleagues 2013. Kepler’s Unparalleled Exploration of the Time Dimension. *arXiv e-prints*.
- Vashishtha, M. and 19 colleagues 2013. Targeting H3K4 trimethylation in Huntington disease. *Proceedings of the National Academy of Science* 110, E3027E3036.
- Zhao, B., Li, Z.-Y., **Kratter**, K. M. 2013. Effect of Magnetic Misalignment on Protobinary Evolution. *arXiv e-prints*.

- Harding, L. K. and 6 colleagues 2013. Spin-orbit alignment in the very low mass binary regime. The L dwarf tight binary 2MASSW J0746425+200032AB. *Astronomy and Astrophysics* 554.
- Kratter**, K. M. 2012. The Formation and Evolution of Massive Binaries. *Proceedings of a Scientific Meeting in Honor of Anthony F. J. Moffat* 465, 451.
- Perets, H. B., **Kratter**, K. M. 2012. The Triple Evolution Dynamical Instability: Stellar Collisions in the Field and the Formation of Exotic Binaries. *The Astrophysical Journal* 760.
- Stassun, K. G., **Kratter**, K. M., Scholz, A., Dupuy, T. J. 2012. Correcting for Activity Effects on the Temperatures, Radii, and Estimated Masses of Low-Mass Stars and Brown Dwarfs. *arXiv e-prints*.
- Stassun, K. G., **Kratter**, K. M., Scholz, A., Dupuy, T. J. 2012. An Empirical Correction for Activity Effects on the Temperatures, Radii, and Estimated Masses of Low-mass Stars and Brown Dwarfs. *The Astrophysical Journal* 756.
- Conroy, C., **Kratter**, K. M. 2012. Runaway Stars and the Escape of Ionizing Radiation from High-redshift Galaxies. *The Astrophysical Journal* 755.
- Youdin, A. N., **Kratter**, K. M., Kenyon, S. J. 2012. Circumbinary Chaos: Using Pluto’s Newest Moon to Constrain the Masses of Nix and Hydra. *The Astrophysical Journal* 755.
- Kratter**, K. M., Perets, H. B. 2012. Star Hoppers: Planet Instability and Capture in Evolving Binary Systems. *The Astrophysical Journal* 753.
- Kratter**, K. M., Murray-Clay, R. A. 2011. Fragment Production and Survival in Irradiated Disks: A Comprehensive Cooling Criterion. *The Astrophysical Journal* 740.
- Lin, M.-K., Krumholz, M. R., **Kratter**, K. M. 2011. Spin-down of protostars through gravitational torques. *Monthly Notices of the Royal Astronomical Society* 416, 580590.
- Perets, H. B., **Kratter**, K. M. 2011. Formation of Compact Binaries in Destabilised Evolved Triples. *Evolution of Compact Binaries* 447, 61.
- Kratter**, K. M. 2011. The Formation of Close Binaries. *Evolution of Compact Binaries* 447, 47.
- Offner, S. S. R., **Kratter**, K. M., Matzner, C. D., Krumholz, M. R., Klein, R. I. 2010. The Formation of Low-mass Binary Star Systems Via Turbulent Fragmentation. *The Astrophysical Journal* 725, 14851494.
- Kratter**, K. M., Murray-Clay, R. A., Youdin, A. N. 2010. The Runts of the Litter: Why Planets Formed Through Gravitational Instability Can Only Be Failed Binary Stars. *The Astrophysical Journal* 710, 13751386.
- Kratter**, K. M., Matzner, C. D., Krumholz, M. R., Klein, R. I. 2010. On the Role of Disks in the Formation of Stellar Systems: A Numerical Parameter Study of Rapid Accretion. *The Astrophysical Journal* 708, 15851597.
- Kratter**, K. M., Matzner, C. D., Krumholz, M. R. 2008. Global Models for the Evolution of Embedded, Accreting Protostellar Disks. *The Astrophysical Journal* 681, 375390.
- Kratter**, K. M., Matzner, C. D., Krumholz, M. R. 2008. Embedded, Accreting Disks in Massive Star Formation. *Massive Star Formation: Observations Confront Theory* 387, 262.
- Kratter**, K. 2007. Global Models for the Evolution of Embedded Accreting Protostellar Disk. *Star Formation, Then and Now*.
- Kratter**, K. M., Carter, L. M., Campbell, D. B. 2007. An expanded view of Lada Terra, Venus: New Arecibo radar observations of Quetzalpetlatl Corona and surrounding flows. *Journal of Geophysical Research (Planets)* 112.

- Hinkley, S. and 10 colleagues 2007. Temporal Evolution of Coronagraphic Dynamic Range and Constraints on Companions to Vega. *The Astrophysical Journal* 654, 633640.
- Kratter**, K. M., Matzner, C. D. 2006. Fragmentation of massive protostellar discs. *Monthly Notices of the Royal Astronomical Society* 373, 15631576.
- Soummer, R. and 10 colleagues 2006. The Lyot project coronagraph: data processing and performance analysis. *EAS Publications Series* 22, 199212.