

## CURRICULUM VITAE

### Theodore Kareta

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#### (a) Education

Lunar and Planetary Laboratory	Tucson, AZ	Planetary Sciences	Graduate (PhD) Student
University of Massachusetts	Amherst, MA	Physics, Astronomy	B.S. <i>Cum Laude</i> , 2017

#### (b) Research & Professional Experience

2017 – Present    Graduate Research & Teaching Assistant, Lunar and Planetary Laboratory  
2016 – 2017    Outreach Observatory Director, University of Massachusetts  
2015 – 2017    Undergraduate Astronomy Researcher, University of Massachusetts

#### (c) Publications (Peer-Reviewed)

##### *First-Author Publications (5 Published, 1 Additional In Review Not Listed)*

1. Kareta, T., Hergenrother, C., Reddy, V., & Harris, W. M., Surfaces of (Nearly) Dormant Comets and the Recent History of the Quadrantid Meteor Shower. 2021, *The Planetary Science Journal*, 2, 31, doi: [10.3847/PSJ/abd403](https://doi.org/10.3847/PSJ/abd403)
2. Kareta, T., Reddy, V., Hergenrother, C., et al., Rotationally Resolved Spectroscopic Characterization of Near-Earth Object (3200) Phaethon. 2018, *The Astronomical Journal*, 156, 287, doi: [10.3847/1538-3881/aaeb8a](https://doi.org/10.3847/1538-3881/aaeb8a)
3. Kareta, T., Sharkey, B., Noonan, J., et al., Physical Characterization of the 2017 December Outburst of the Centaur 174P/Echeclus. 2019, *The Astronomical Journal*, 158, 255, doi: [10.3847/1538-3881/ab505f](https://doi.org/10.3847/1538-3881/ab505f)
4. Kareta, T., Andrews, J., Noonan, J. W., et al., Carbon Chain Depletion of 2I/Borisov. 2020, *The Astrophysical Journal*, 889, L38, doi: [10.3847/2041-8213/ab6a08](https://doi.org/10.3847/2041-8213/ab6a08)
5. Kareta, T., Woodney, L. M., Schambeau, C., et al., Contemporaneous Multiwavelength and Precursor Observations of the Active Centaur P/2019 LD2 (ATLAS). 2021, *The Planetary Science Journal*, 2, 48, doi: [10.3847/PSJ/abe23d](https://doi.org/10.3847/PSJ/abe23d)

##### *Co-Author Publications (9 Published)*

1. Dellagiustina, D. N., Emery, J. P., Golish, D. R., et al., Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. 2019, *Nature Astronomy*, 3, 341, doi: [10.1038/s41550-019-0731-1](https://doi.org/10.1038/s41550-019-0731-1)
2. Fieber-Beyer, S. K., Kareta, T., Reddy, V., & Gaffey, M. J., Near-earth asteroid: (285263) 1998 QE2. 2020, *Icarus*, 347, 113807, doi: [10.1016/j.icarus.2020.113807](https://doi.org/10.1016/j.icarus.2020.113807)
3. Hergenrother, C. W., Maleszewski, C. K., Nolan, M. C., et al., The operational environment and rotational acceleration of asteroid (101955) Bennu from OSIRIS-REx observations. 2019, *Nature Communications*, 10, 1291, doi: [10.1038/s41467-019-09213-x](https://doi.org/10.1038/s41467-019-09213-x)
4. Hergenrother, C. W., Maleszewski, C., Li, J. Y., et al., Photometry of Particles Ejected From Active Asteroid (101955) Bennu. 2020, *Journal of Geophysical Research (Planets)*, 125, e06381, doi: [10.1029/2020JE006381](https://doi.org/10.1029/2020JE006381)

5. Noonan, J. W., Reddy, V., Harris, W. M., et al., Search for the H Chondrite Parent Body among the Three Largest S-type Asteroids: (3) Juno, (7) Iris, and (25) Phocaea. 2019, , 158, 213, doi: [10.3847/1538-3881/ab4813](https://doi.org/10.3847/1538-3881/ab4813)
6. Reddy, V., Kelley, M. S., Farnocchia, D., et al., Near-Earth asteroid 2012 TC4 observing campaign: Results from a global planetary defense exercise. 2019, , 326, 133, doi: [10.1016/j.icarus.2019.02.018](https://doi.org/10.1016/j.icarus.2019.02.018)
7. Sanchez, J. A., Reddy, V., Thirouin, A., et al., Physical Characterization of Active Asteroid (6478) Gault. 2019, , 881, L6, doi: [10.3847/2041-8213/ab31ac](https://doi.org/10.3847/2041-8213/ab31ac)
8. Steckloff, J. K., Sarid, G., Volk, K., et al., P/2019 LD2 (ATLAS): An Active Centaur in Imminent Transition to the Jupiter Family. 2020, , 904, L20, doi: [10.3847/2041-8213/abc888](https://doi.org/10.3847/2041-8213/abc888)
9. Takir, D., Kareta, T., Emery, J. P., et al., Near-infrared observations of active asteroid (3200) Phaethon reveal no evidence for hydration. 2020, Nature Communications, 11, 2050, doi: [10.1038/s41467-020-15637-7](https://doi.org/10.1038/s41467-020-15637-7)

**(d) Awards & Press Coverage**

1. Lunar and Planetary Laboratory Gerard P. Kuiper Memorial Award (2021)
2. University of Arizona College of Science Excellence in Scholarship Award (2021)
3. DPS Press Release for First Author Paper (2018 - Phaethon, 2020 - P/2019 LD2)
4. Best Graduate Student Talk Award (Lunar and Planetary Laboratory Conference 2020)
5. Morton and Helen Sternheim Undergraduate Award for Educational Outreach (UMass, 2017)

**(e) Invited Talks**

1. International Symposium on Dust and Parent Bodies (IDP) (Tokyo, Japan, Feb. 2019)
2. Lowell Observatory (Flagstaff, USA, March 2018)

**(f) Community & DEI Service & Teaching**

1. Mentoring of 3 Undergraduates, 1 H.S. Student (incl. 3 Women, URM) (2018 – Present)
2. Consistent Member of LPL Allyship Group, DEI Reading Group (2017 – Present)
3. Founder of Women and URM Mentorship in Astronomy Mentorship Program (UMass)
4. Regular referee for Icarus, Planetary Science Journal, Planetary and Space Science
5. Panel Member and Executive Secretary on NASA Grant Review Panels
6. Lunar and Planetary Conference Organizer, Lead (2018 – Present, 2019)
7. SpaceDrafts Co-Organizer (Tucson's Astronomy on Tap, 2020 – Present)
8. LPL Journal Club Co-Lead (2018 – 2020)
9. Teaching Assistant for Introduction to Computational Physics (UMass, 2016), Asteroids, Comets, and Kuiper Belt Objects (UAz, 2018), Building a Habitable World (UAz, 2019)

**(g) Telescope Proposals & Observing**

1. Large Binocular Telescope (Mount Graham, AZ) (2 DDT PI'd Proposals for half nights.)
2. Gemini South (Cerro Pachon, Chile) (0.5 nights PI)
3. NASA Infrared Telescope Facility (Mauna Kea, HI) (0.5 nights PI + 8 nights Co-I)
4. WIYN 0.9m Telescope (Kitt Peak, AZ) (2 nights PI + 6 nights Co-I)
5. Additional Observing: MMT Observatory (Mount Hopkins, AZ), various small telescopes