

SHERRY K. FIEBER-BEYER, PhD.

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Department of Space Studies, University of North Dakota, Grand Forks, ND 58202-9008
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EDUCATION

University of North Dakota-Grand Forks	Earth System Science and Policy	PhD. 2010
University of North Dakota-Grand Forks	Physics	M.S. 2006
Minnesota State University-Moorhead	Physics/Astronomy	B.S. 2003

PROFESSIONAL APPOINTMENTS

UNIVERSITY OF NORTH DAKOTA:

Associate Professor, Department of Space Studies	2024-present
Assistant Professor, Department of Space Studies	2020-2024
Director of UND Observatory, Department of Space Studies	2017-present
Research Assistant Professor, Department of Space Studies	2017-2020
Post-Doctoral Fellow, Department of Space Studies	2011-2017
Graduate Research Assistant, Department of Space Studies	2005-2010
Graduate Research Assistant, Department of Physics	2004-2005

U. S. DEPARTMENT OF STATE

U.S. Speaker Program	2024-present
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U. S. DEPARTMENT OF HOMELAND SECURITY

SAGE Subject Matter Expert	2024-present
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NATIONAL OPTICAL-INFRARED ASTRONOMY RESEARCH LABORATORY

Chair, Solar System TAC	2024-present
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NASA INFRARED TELESCOPE FACILITY, MAUNA KEA, HI:

Visiting Astronomer	2005-present
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MINNESOTA STATE UNIVERSITY-MOORHEAD:

Undergraduate Research Assistant, Department of Physics	1999-2003
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AWARDED RESEARCH GRANTS

2019-24	National Science Foundation-Astronomy [1841809], "Is the Massalia family of asteroids the source of the L-chondrite meteorites?" Co-PI , \$469,669 (NCE)
2022	North Dakota Space Grant, "Asteroids: Prospective Energy and Material Resources," PI , \$4500.
2018	North Dakota Space Grant, "Writing in Science: Proposals," PI , \$4500.
2017-20	National Science Foundation-Astronomy [1737448], "Near-Infrared Identification of a Possible H-chondrite Asteroid Family Associated with (6) Hebe," PI , \$152,939
2014-17	NASA – Planetary Geology and Geophysics [NNX14AN05G], "Asteroid Mineralogical Characterizations and Implications," "Near-Infrared Spectral Observations of 3:1 Kirkwood Gap & Gefion Family Asteroids" Co-PI , \$497,000
2012-16	NASA– Near-Earth Objects Observations Program [NNX12AG12G] "Compositional and Physical Characterizations of Near-Earth Objects," Co-PI , \$437,186

2011-14	NASA– Planetary Geology and Geophysics [NNX11AN84G], “Asteroid Mineralogical Characterizations and Implications,” Co-PI , \$459,037
2010-12	NASA– Planetary Geology and Geophysics [NNX11AN84G], “Asteroid Mineralogical Characterizations and Implications,” Post-Doctoral Associate , \$150,000
2008-10	NASA Earth and Space Sciences Fellowship, “Mineralogical Characterizations of Asteroids near the 3:1 Kirkwood Gap,” PI , \$90,000
2009	Lunar and Planetary Science Institute, travel grant, PI , \$500
2008	Lunar and Planetary Science Institute, travel grant, PI , \$500
2007-12	NASA– Near-Earth Objects Observations Program [NNX07AL29G], “Physical and Compositional Characterizations of Near-Earth Objects,” Graduate Student/Post-Doctoral Associate , \$437, 186
2007-10	NASA - Planetary Geology and Geophysics [NNX07AP73G], "Mineralogical Characterization of Asteroids," Graduate Student , \$100,000
2004-08	NASA – Near-Earth Object Observation Program [NNG04GI17G], “Characterization of Near-Earth Objects,” Graduate Student \$171,403
2004-08	NASA - Planetary Geology and Geophysics [NAG5-13792], "Characterization of Asteroid Surface Materials: Meteorite Parent Bodies and Asteroid Evolutionary Histories," Graduate Student \$105,000

PROFESSIONAL HONORS

2018	Distinguished Alumna: Minnesota State University-Moorhead
2014	Asteroid (14825) Fieber-Beyer: International Astronomical Union

JOURNAL PUBLICATIONS (all refereed)

23. Strom C. A., Nordheim, T. A., Patthoff, D. A. and **Fieber-Beyer, S. K., (2024)**. Constraining Ocean and Ice Shell Thickness on Miranda from Surface Geological Structures and Stress Modeling. *The Planetary Science Journal* **5:10**, 18pp.
22. Lucas, L. J., and **Fieber-Beyer, S. K. (2024)**. Photometry of PHA (349507) 2008 QY. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, Vol. **51**, No. 3, p. 231.
21. Rommel et al. **(2023)**. A large topographic feature on the surface of the trans-Neptunian object (307261) 2002 MS4 measured from stellar occultations. *Astronomy & Astrophysics*, **678**, 25p.
20. Russell, S., **Fieber-Beyer, S. K.**, and Yurkonis, K. **(2022)**. CI Asteroid Regolith as an In-Situ Plant Growth Medium for Space Crop Production. *Planetary Science Journal*, **3:7**, 11p.
19. Germann, J. T., **Fieber-Beyer, S.K.** and Gaffey, M.J. **(2022)**. Evidence for hydrated minerals in the VNIR spectra of G-class asteroids: A first look. *Icarus* **377**, 7p.
18. McCloat, S., von Essen, C., and **Fieber-Beyer, S. (2021)**. Atmospheric Transmission Spectroscopy of Hot Jupiter KELT-10b using Synthetic Telluric Correction Software. *The Astronomical Journal*, Volume **162**, Issue 4, id.132, 12 pp.
17. Newcomb, S. D., and **Fieber-Beyer, S. K. (2021)**. Photometric Observations of (68347) 2001 KB67, (494999) 2010 JU39 and (455432) 2003 RP8. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, Vol. **48**, No. 3, p. 223-224.
16. **Fieber-Beyer, S.K.** and Gaffey, M.J., **(2020)**. The Family of (6) Hebe. *The Planetary Science Journal*, **1:68**, 11p.

15. **Fieber-Beyer, S.K., Kareta, T., Reddy, V., and Gaffey, M.J., (2020).** Near-Earth Asteroid: 1998 QE2. *Icarus* **347**, 1-4.
14. **Fieber-Beyer, S.K. and Gaffey, M.J., (2019).** NEA 162385 (2000 BM 19): near-infrared compositional analysis of a multi-trillion dollar mining target. *Icarus* **328**, 23-31.
13. McCraig, M. A., Osinska, G. R., Cloutisa, E.A., Flemming, R. L., Izawac, M. R., Reddy, V., **Fieber-Beyer, S. K.**, Pompiliog, L., van der Meerh, F., Bergera, J. A., Bramblea, M.S., Applin, D.M. (2017). Fitting the curve in Excel®: Systematic curve fitting of laboratory and remotely sensed planetary spectra. *Computers & Geoscience* **100**, 103-114.
12. Gaffey, M.J., Reddy, V., **Fieber-Beyer, S.K.**, and Cloutis, E. (2015). Asteroid (354) Eleonora: Plucking an odd duck. *Icarus*, Volume **250**, p. 623-638.
11. Marion, G. H.; Sand, D. J.; Hsiao, E. Y.; Banerjee, D. P. K.; Valenti, S.; Stritzinger, M. D.; Vinkó, J.; Joshi, V.; Venkataraman, V.; Ashok, N. M.; Amanullah, R.; Binzel, R. P.; Bochanski, J. J.; Bryngelson, G. L.; Burns, C. R.; Drozdov, D.; **Fieber-Beyer, S. K.**; Graham, M. L.; Howell, D. A.; Johansson, J.; Kirshner, R. P.; Milne, P. A.; Parrent, J.; Silverman, J. M.; Vervack, R. J., Jr.; Wheeler, J. C. (2015). Early Observations and Analysis of the Type Ia SN 2014J in M82. *The Astrophysical Journal*, **798:39** (12pp).
10. **Fieber-Beyer, S.K. and Gaffey, M.J., (2015).** Near-infrared spectroscopy of 3:1 Kirkwood Gap Asteroids III. *Icarus* **257**, 113-125.
9. **Fieber-Beyer, S. K.**, M. J. Gaffey, and W. Bottke (2015). Potentially Hazardous Asteroid 2007 LE: Compositional Link to the Black Chondrite Rose City and Asteroid (6) Hebe. *Icarus* **250**, 430-437.
8. **Fieber-Beyer, S.K. & Gaffey, M.J., (2014).** Near-infrared spectroscopy of 3:1 Kirkwood Gap Asteroids II: Probable and plausible parent bodies; primitive and differentiated. *Icarus* **229**, 99-108.
7. **Fieber-Beyer, S.K.**, Gaffey, M.J., Hardersen, P.S., and Reddy, V. (2012). Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids: Mineralogical Diversity and Plausible Meteorite Parent Bodies. *Icarus* **221**, 593-602.
6. **Fieber-Beyer, S.K. and Gaffey, M.J., (2011).** Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids 3760 Poutanen, and 974 Lioba. *Icarus* **214**, 645-651.
5. **Fieber-Beyer, S. K.**, Gaffey, M. J., Kelley, M. S., Reddy, V., Reynolds, C. M., Hicks, T. (2011). The Maria Asteroid Family: Genetic Relationships and a Plausible Source of Mesosiderites near the 3:1 Kirkwood Gap *Icarus* **213**, 524-537.
4. **Fieber-Beyer, S.K.**, Gaffey, M.J., and Abell, P.A., (2011) Mineralogical Characterization of Near Earth Amor Asteroid 1036 Ganymed. *Icarus* **212**, 149-157.
3. Worman, W. E.; **Fieber, Sherry**; Hulet, Kiernan (2004). Photometry of 374 Burgundia. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, Vol. **31**, No. 3, p. 66 – 67.
2. Worman, W. E.; **Fieber, Sherry**; Newman, Matthew G.; Kirby, Monica (2004). CCD photometry of 934 Thuringia. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, Vol. **30**, No. 4, p. 77 – 78.
1. Worman, W. E.; **Fieber, Sherry**; Creason, Mary A. (2003). CCD photometry of 625 Xenia. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, Vol. **30**, No. 2, p. 32 .

DATA ARCHIVE PRODUCTS (refereed)

7. **Fieber-Beyer, S.K.**, Yurkonis, K.A., and Russell S.J., CI Asteroid Regolith as an In Situ Plant Growth Medium for Space Crop Production, NASA Open Science Data Repository, 2024. <http://doi.org/10.26030/m04e-p031>
6. Rommel et al., VizieR Online Data Catalog: occultation events by (307261) 2002 MS4 (Rommel+, 2023). VizieR On-line Data Catalog: J/A+A/678/A167. Originally published in: 2023A&A...678A.167R. <https://cdsarc.cds.unistra.fr/viz-bin/cat/J/A+A/678/A167>.
5. **Fieber-Beyer, S.K.**, Fieber-Beyer, S.K., Fieber-Beyer IRTF Mainbelt Asteroid Spectra V2.0. urn:nasa:pds:gbo.ast.fieber-beyer.spectra::2.0. NASA Planetary Data System, 2021.
4. **Fieber-Beyer, S.K.**, Fieber-Beyer, S.K., Fieber-Beyer IRTF Mainbelt Asteroid Spectra V1.0. urn:nasa:pds:gbo.ast.fieber-beyer.spectra::1.0. NASA Planetary Data System, 2020.
3. **Fieber-Beyer, S.K.**, Fieber-Beyer IRTF Mainbelt Asteroid Spectra V3.0. EAR-A-I0046-3-FBIRTSPEC-V3.0. NASA Planetary Data System, 2015.
2. **Fieber-Beyer, S.K.**, Fieber-Beyer IRTF Mainbelt Asteroid Spectra V2.0. EAR-A-I0046-3-FBIRTSPEC-V2.0. NASA Planetary Data System, 2013.
1. **Fieber-Beyer, S.K.**, Fieber-Beyer IRTF Mainbelt Asteroid Spectra V1.0.-EAR-A-I0046-3-FBIRTSPEC-V1.0. NASA Planetary Data System, 2011.

BOOKS

London, M., **Fieber-Beyer, S.** (content consultant). Explore Asteroids. In Marie Pearson (Ed.), *Explore Asteroids* (pp. 32 pages). Minneapolis, Minnesota: North Star Editions. 2021

CONFERENCE ABSTRACTS

36. McCloat, S., Mulders, G., and **Fieber-Beyer, S.**, (2024). The PPOLs Model of Pebble Accretion for Water Delivery to Inner Planet Cores. Exoplanets5 Conference, Leiden, Netherlands, June 2024, Abstract 689.
35. Strom C. A., **Fieber-Beyer, S. K.**, and Scully, J. E. (2024). Evaluation of Age and Rheology Differences as Causes of the Morphological Distinctiveness of Ahuna Mons. 55th LPSC, LPI Contribution No. 1116.
34. Strom C. A., Nordheim, T. A., Patthoff, D. A. and **Fieber-Beyer, S. K.**, (2024). Constraining Ocean and Ice Shell Thickness on Ariel from Surface Geological Structures and Stress Modeling. 55th LPSC, LPI Contribution No. 1620.
33. Strom C. A., **Fieber-Beyer, S. K.**, and Scully, J. E. (2023). Evaluation of Age and Rheology Differences as Causes of the Morphological Distinctiveness of Ahuna Mons. 54th LPSC, LPI Contribution No. 1642.
32. Strom C. A., **Fieber-Beyer, S. K.**, and Gaffey, M. J. (2022). Evaluating Massalia Family Asteroids as the Source of the L-Chondrite Meteorites. 53rd LPSC, LPI Contribution No. 2678.
31. Strom C. A., **Fieber-Beyer, S. K.**, Germann J. T., and Gaffey, M. J. (2021). A Spectral Analysis Of The Massalia Asteroid Family To Evaluate The Lchondrite Source Hypothesis. 52nd LPSC, LPI Contribution No. 1597.
30. **Fieber-Beyer, S. K.**, (2021). Interesting Objects Near (6) Hebe. 52nd LPSC, LPI Contribution No. 1233.
29. Russell S. T., and **Fieber-Beyer, S. K.**, (2021). An Evaluation of Ci Carbonaceous Asteroid Regolith As A Plant Growth Medium For Space Crop Production. 52nd LPSC, LPI Contribution No. 1406.

28. Germann J. T., and **Fieber-Beyer, S. K.**, (2021). VNIR Reflectance Spectroscopy of Five G-class Asteroids: Implications for Mineralogy and Geologic Evolution. 52nd LPSC, LPI Contribution No. 1143.
27. Strom C. A., **Fieber-Beyer, S. K.**, Germann J. T., and Gaffey, M. J. (2021). A Spectral Analysis Of The Massalia Asteroid Family To Evaluate The Lchondrite Source Hypothesis. 52nd LPSC, LPI Contribution No. 1597.
26. Germann J. T., **Fieber-Beyer, S. K.**, Strom C. A., and Gaffey, M. J. (2021). NIR Reflectance Spectroscopy of Massalia Family Asteroids 8452 Clay, 2316 Jo-Ann, 7760, 52442, 27120 Isabelhawkins. 52nd LPSC, LPI Contribution No. 1320.
25. **Fieber-Beyer, S. K.**, and Gaffey, M. J. (2019). The Family of Asteroid (6) Hebe: Initial Results. 50th LPSC, LPI Contribution No. 1047.
24. Gaffey, M. J., and **Fieber-Beyer, S. K.** (2019). Is The (20) Massalia Family the Source of The L-Chondrites? 50th LPSC, LPI Contribution No. 1441.
23. **Fieber-Beyer, S. K.**, Gaffey, M. J., and Hardersen, P. S. (2016). Near-infrared Spectroscopy of 3:1 Kirkwood Asteroids. 47th LPSC, LPI Contribution No. 1481.
22. **Fieber-Beyer, S. K.**, and M. J. Gaffey, (2015). Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids III. 46th Lunar & Planetary Science Conference, LPI Contribution No. 1048.
21. Roberts, R. V.; Gaffey, M. J.; **Fieber-Beyer, S. K.**, (2015). Is the Gefion Dynamical Asteroid Family the Source of the L-Chondrites? 78th Annual Meeting of the Meteoritical Society, held July 27-31, 2015 in Berkeley, California. LPI Contribution No. 1856, p.5073.
20. Gaffey, M. J., Reddy, V., **Fieber-Beyer, S. K.**, and Cloutis, E. (2014) Asteroid (354) Eleonora: Plucking an Odd Duck. 45th Lunar & Planetary Science Conference, LPI Contribution No. 1777 p 1453.
19. **Fieber-Beyer, S. K.**, Gaffey, M. J., and Hardersen, P. S. (2014). Potentially Hazardous Asteroid 2007 LE: Probable Parent Body of the Black Chondrite Rose City and Daughter of Asteroid (6) Hebe. 45th Lunar & Planetary Science Conference, LPI Contribution No. 1777 p 1428.
18. **Fieber-Beyer, S.K.**, and Gaffey, M.J., (2013) Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids: A Battalion of Basalts. 44th Lunar & Planetary Science Conference, LPI Contribution No. 1719, p.1352.
17. Gaffey, M. J., and **Fieber-Beyer, S.K.**, (2013). Identification of a Possible H-Chondrite Asteroid Family. *Meteoritics and Planetary Science Supplement*, id.5124
16. Roberts, R.V., Gaffey, M.J., and **Fieber-Beyer, S.K.**, (2013). Mineralogical Assessment of 2911 Miahelena and 3788 Steyaert, two Gefion Asteroid Family Members. *Meteoritics and Planetary Science Supplement*, id. 5127.
15. Roberts, R.V., Gaffey, M.J., and Fieber-Beyer, S.K., (2013). Mineralogical Assessment of two Gefion Family Asteroids: 1433 Geramtina & 4182 Mount Locke. 44th Lunar & Planetary Science Conference, LPI Contribution No. 1719, p.2713
14. **Fieber-Beyer, S. K.**, Gaffey, M.J., and Blagen, J.M. (2012). Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids (660) Crescentia, (797) Montana, (879) Ricarda, (1391) Carelia, and (1644) Rafita. 43rd Lunar and Planetary Science Conference, LPI Contribution LPI Contribution No. 1659, id.1530.
13. Blagan, J.M., Gaffey, M.J., and **Fieber-Beyer, S.K.**, (2012). Testing the Gefion family as a possible parent body for the L-chondrite meteorites. 43rd Lunar & Planetary Science Conference, LPI Contribution No. 1659, id.1643.
12. **Fieber-Beyer, S. K.**, Gaffey, M. J., Kelley, M. S., Reddy, V., Reynolds, C. M., Hicks, T. (2011). The 3:1 Kirkwood Gap and the Maria Family: Genetic Family Membership and Plausible Source Body of Mesosiderites. 42nd Lunar and Planetary Science Conference, LPI

Contribution No. 1411.

11. **Fieber-Beyer, S. K.**, Gaffey, M. J., Kelley, M. S., Reddy, V., Reynolds, C. M., Hicks, T. (2010). The 3:1 Kirkwood Gap and the Maria Family: Genetic Family Membership and Probable Source Body of Mesosiderites. *Meteoritics & Planetary Science*, Abstract # 5122.
10. **Fieber-Beyer, S. K.**, Gaffey, M. J., Kelley, M. S., Reddy, V., Reynolds, C. M., Hicks, T. (2010). Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids 695 Bella, 714 Ulula, and 3066 McFadden. 41st *Lunar and Planetary Science Conference*, LPI Contribution No. 1533, p.1500
9. **Fieber-Beyer, S.K.**, and Gaffey, M.J. (2010). Near-Infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids: 908 Buda and 1772 Gagarin. 41st *Lunar and Planetary Science Conference*, LPI Contribution No. 1533, p.1853
8. **Fieber-Beyer, S.K.**, Gaffey, M.J., Hardersen, P.S., (2009). Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids 1379 Lomonosawa and 974 Lioba: Plausible Parent Bodies of L- and LL-chondrites. In *Lunar and Planetary Science XL*, Abstract #1115, Lunar and Planetary Institute, Houston (CD-ROM).
7. **Fieber-Beyer, S.K.**, Gaffey, M.J., Abell, P.A., Reddy, V., (2008). Compositional and Dynamical Studies of Asteroids Located In/Near the 3:1 Kirkwood Gap: 495 Eulalia-A First Step. In *Lunar and Planetary Science XXXIX*, Abstract #1149.
6. Reddy, V.; Gaffey, M. J.; Abell, P. A.; Kumar, S., & **Fieber-Beyer, S. K.**, (2008). Faint, Fuzzy and 'Featureless' PHAs: Making the Most Out of Almost Nothing. 39th Lunar and Planetary Science Conference, (Lunar and Planetary Science XXXIX), held March 10-14, 2008 in League City, Texas. LPI Contribution No. 1391, p.1996
5. **Fieber-Beyer, S.K.**, Gaffey, M.J. (2007) Spinel-bearing Asteroids...the Most Ancient Asteroids in the Solar System. *Meteoritics & Planetary Science*, Abstract # 5116, Vol. 42, No. 8, p.A47
4. **Fieber-Beyer, S.K.**, Gaffey, M.J., Abell, P.A., Reddy (2007) Mineralogical Characterization of near-Earth Amor Asteroid 1036 Ganymed. *Lunar & Planetary Science XXXVIII*, Abstract #1695.
3. Hardersen, P.S., Gaffey, M.J., Kumar, S, **Fieber-Beyer, S.K.**, Crowell J.J, Crowell A.J. (2007) Near-IR Reflectance Spectra of M-asteroids 250 Bettina, 369 Aeria, 413 Edburga, and 931 Whitemora (2007). In *Lunar & Planetary Science XXXVIII*, Abstract #1956.
2. **Fieber-Beyer, S.K.**, Gaffey, M.J., Hardersen, P.S., (2006) Near-IR spectroscopic analysis of mainbelt X-asteroid 469 Argentina. In *Geologic Society of America Abstracts with Programs* Volume 38, Number 7.
1. **Fieber-Beyer, S.K.**, Gaffey, M.J., Hardersen, P.S. (2006), Near-infrared spectroscopic analysis of mainbelt M-asteroid 755 Quintilla. In *Lunar & Planetary Science XXXVII*, Abstract#1315.

PRESS

2024 Uranus' moon could be home to aliens — scientists reveal 'bizarre' new find

<https://nypost.com/2024/10/30/science/uranus-moon-miranda-could-be-supporting-alien-life-scientists/>

2024 UND research suggests Uranus' moon could host subterranean ocean

<https://www.grandforksherald.com/news/local/und-research-suggests-uranus-moon-could-host-subterranean-ocean>

2024 UND astronomers help uncover mysteries of Miranda

- <https://blogs.und.edu/und-today/2024/10/und-astronomers-help-uncover-mysteries-of-miranda/>
- 2024 Earth's Mini-Moon Linked to Farside Lunar Crater
<https://skyandtelescope.org/astronomy-news/earths-mini-moon-linked-to-farside-lunar-crater/>
- 2023 UND Professor explains what unidentified aerial phenomena could be
<https://www.kvrr.com/2023/08/03/und-professor-explains-what-unidentified-aerial-phenomena-could-be/>
- 2023 It's a bird! It's a plane! It's ... the Green Comet!
<https://blogs.und.edu/und-today/2023/01/its-a-bird-its-a-plane-its-the-green-comet/>
- 2022 What size asteroid would cause an extinction event - and how Nasa has a plan to protect us
<https://www.independent.co.uk/space/size-asteroid-extinction-event-nasa-dart-b2175626.html>
- 2022 How Nasa's Dart mission could save Earth from rogue asteroids
<https://www.independent.co.uk/space/nasa-dart-images-planetary-defender-asteroids-b2176157.html>
- 2022 Astronauts might be able to use asteroid soil to grow crops
<https://www.sciencenews.org/article/asteroid-soil-crops-food-space>
- 2022 Asteroid Has Nutrients Making It Possible to Plant and Grow Crops Outside Planet Earth, New Research Says
<https://www.sciencetimes.com/articles/39097/20220731/asteroid-nutrients-making-possible-plant-grow-crops-outside-planet-earth.htm>
- 2022 Asteroid Soil to Grow Crops
<https://www.kxnet.com/video/asteroid-soil-to-grow-crops/7911739/>
- 2021 Prairie Public Radio: Space Farming
<https://news.prairiepublic.org/podcast/main-street/2021-11-18/conservation-ranching-award-corporate-influence-on-universities-space-farming>
- 2021 Farming on asteroids: Science future, not science fiction
<http://blogs.und.edu/und-today/2021/02/farming-on-asteroids-science-future-not-science-fiction/>
- 2020 UND astronomers discover source of many meteorites
<http://blogs.und.edu/und-today/2020/12/und-astronomers-discover-source-of-many-meteorites/>
- 2020 University of North Dakota astronomers discover source of many meteorites
<https://www.newswise.com/articles/university-of-north-dakota-astronomers-discover-source-of-many-meteorites>
- 2020 UND researchers trace origins of meteorites
<https://www.thedickinsonpress.com/news/science-and-nature/6788806-UND-researchers-trace-origins-of-meteorites>
- 2020 UND researchers trace origins of meteorites
<https://www.grandforksherald.com/news/education/6788392-UND-researchers-trace-origins-of-meteorites>
- 2020 UND researchers trace origins of meteorites
<https://www.jamestownsun.com/news/science-and-nature/6788806-UND-researchers-trace-origins-of-meteorites>
- 2020 UND researchers trace origins of meteorites

<https://www.inforum.com/news/science-and-nature/6788806-UND-researchers-trace-origins-of-meteorites>

2020 UND researchers trace origins of meteorites

<https://www.duluthnewtribune.com/news/science-and-nature/6788806-UND-researchers-trace-origins-of-meteorites>

2020 Interview: UND astronomers discover source of many meteorites that fall in our region

<https://inewz.tv/>

2020 UND names search committee to replace aerospace dean

<https://blogs.und.edu/uletter/2020/07/und-aerospace-dean-search-begins/>

2018 Asteroid miners could use Earth's atmosphere to catch space rocks

<https://www.sciencemag.org/news/2018/08/asteroid-miners-could-use-earth-s-atmosphere-catch-space-rocks>

2018 Asteroid WARNING: Scientists to nudge asteroids towards EARTH

<https://www.express.co.uk/news/science/1013390/Asteroid-warming-redirect-asteroids-Earth-asteroid-mining-rock-space>

2017 Why So Many Meteorites Come From The Same Place

<https://www.youtube.com/watch?v=kygTzIXmqfM&v1=ru>

2017 Earth's tilt the reason for the season (and seasons)

<https://www.grandforksherald.com/4376220-earths-tilt-reason-season-and-seasons>

2014 UND researcher honored with namesake space rock

<https://www.grandforksherald.com/3307124-und-researcher-honored-namesake-space-rock>

2014 Jamestown native has asteroid with her name on it

<https://www.jamestownsun.com/3314986-jamestown-native-has-asteroid-her-name-it>

2008 Fieber-Beyer awarded fellowship

<https://www.jamestownsun.com/news/1722322-fieber-beyer-awarded-fellowship>

PROFESSIONAL AFFILIATIONS

Sigma Xi	Full Member
The Meteoritical Society	Full Member
Sigma Pi Sigma	Full Member
The National Honors Scholars Society	Full Member

INVITED SPEAKER

2024	Space Operations Summit Title: Binary Asteroids as Threats	Speaker
2024	Grand Farm Title: Asteroid Soil as a Resource for Space Colonization	Speaker
2024	Campus Accessibility Working Group Just Ask: Accessibility and Disability at UND	Panelist
2024	Sertoma Club Title: Observational Astronomy	Speaker
2023	Avit 442: Advanced Airport Operations and Management Title: Airport Accessibility	Speaker
2023	Teaching Transformation & Development Academy Academic Ableism	Panelist

2022	Grand Farm Title: Connecting Indigenous Planting Methods with Space	Speaker
2021	Grand Farm Title: CI Asteroid Soil Simulant as a Plant Growth Medium	Speaker
2020	Sigma Pi Sigma Adopt-a-Physicist Forum	Mentor
2018	Sigma Pi Sigma Adopt-a-Physicist Forum	Mentor
2018	University of Arizona –Lunar & Planetary Lab Title: Career Development Professor: Dr. Vishnu Reddy	Guest Speaker
2009	Minnesota State University-Moorhead Physics Department Title: Near-infrared Spectroscopy of 3:1 Kirkwood Gap Asteroids 1379 Lomonosawa and 974 Lioba: Plausible Parent Bodies of L- and LL-chondrites	Colloquium

COURSES TAUGHT

SPST 425 Observational Astronomy
 SPST 460 Life in the Universe
 SPST 520 Asteroids, Comets, and Meteorites
 SPST 526 Adv Observational Astronomy
 SPST 527 Extraterrestrial Resources
 SPST 504 Research Methods in Space Studies
 SPST 591 Readings in Space Studies

SYNERGISTIC ACTIVITIES

INTERNATIONAL:

- The Astronomy Genealogy Project: AstroGen, American Astronomical Society
- Review for the European Southern Observatory's International Time Programme for the International Scientific Committee of the Observatorios de Canarias, 2023
- Review research publications for a variety of established peer-reviewed journals such as *Icarus*, *Astronomy & Astrophysics*, *Meteoritics & Planetary Science*, *Planetary Science Journal*, *Nature*, *Monthly Notices of the Royal Astronomical Society*, and *The Astrophysical Journal*
- Lunar & Planetary Science Conference Session Chair: Small Body Spectroscopy, 2021
- Lunar & Planetary Science Conference Dwornik Judge, 2011-2019
- Lunar & Planetary Science Conference Session Chair: Asteroids, NEOs, Meteors, and Other Space Oddities, 2016

NATIONAL:

- Group Chief/Panelist/External Reviewer for a number of NASA's research programs including DDAP, PDS, SSO, PMCS, XRP, EPSCoR, PDART, Dawn at Ceres, OPR, MDAP, NESSF, SSERVI, and PGGP Research Grants, 2008-present
- Panelist for NSF Astronomy & Astrophysics Research Grants, 2020

- Sigma Pi Sigma, Adopt-a-Physicist 2020
- Sigma Pi Sigma, Adopt-a-Physicist 2018

LOCAL:

- University of North Dakota
 - o Committee Member: Campus Accessibility Working Group, 2023-present
 - o GRAD Day Judge, UND SGS, 2021
 - o Three Minute Thesis Judge, 2021
 - o Special Institutional Assignment, John D. Odegard Dean of Aerospace Search Committee, Member, 2020
 - o GRAD Day Judge, UND SGS, 2020
 - o ND EPSCoR NATURE (Nurturing American Tribal Undergraduate Research and Education) Research Mentor, 2019
 - o Committee Member, UND Field Station Committee, 2017-present
 - o Committee Member, Space Studies Assessment Committee, 2017-present
 - o NASA's Experimental Program to Stimulate Competitive Research, Judge, 2014.
- Community
 - o UND Space Studies Observatory Public Events September, October, and November 2022 (Jupiter and Saturn Observations, Aurora, Solar Observations, Meteor Shower, Deep Sky Objects)
 - o Whenever a Public Education or Outreach opportunity presents itself, I act, whether it is visiting children's classrooms to discuss our solar system to handing out lithographs or space ice cream to foster excitement.