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University of Arizona

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EDUCATION

1979	Ph. D. in Geophysics & Space Physics at University of California at Los Angeles
1977	M.S. in Geophysics & Space Physics at University of California at Los Angeles
1973	M.S. in Physics at University of Louisiana at Monroe
1971	B.S. in Physics (magna cum laude) at University of Louisiana at Monroe

EMPLOYMENT HISTORY

2019-	Research Professor	Lunar & Planetary Lab, University of Arizona
1995-2019	Senior Research Scientist	Lunar & Planetary Lab, University of Arizona
1989-1995	Associate Research Scientist	Lunar & Planetary Lab, University of Arizona
1983-1989	Assistant Research Scientist	Lunar & Planetary Lab, University of Arizona
1981-1983	Senior Research Associate	Lunar & Planetary Lab, University of Arizona
1979-1981	Postdoctoral Research Associate	Lunar & Planetary Lab, University of Arizona
1975-1979	Research Assistant	Inst. of Geophys. & Planetary Physics, UCLA
1971-1973	Teaching Assistant	Dept. of Physics, Univ. of Louisiana at Monroe

RESEARCH INTERESTS

My research is currently focused on two interdisciplinary areas: (1) mapping and interpretation of planetary crustal magnetic fields; and (2) coupling between the Earth's stratosphere and troposphere. The planetary crustal magnetic field work is aimed at better understanding crustal magnetism and its applications on terrestrial planetary bodies (Moon, Mercury, Mars). The stratosphere/troposphere coupling work is especially oriented toward understanding the effects of the stratospheric forcings (natural and solar-induced) on tropospheric climate.

REFEREED PUBLICATIONS (163 total; 102 first-authored):

Deca, J., **L. L. Hood**, and S. Li (2026) The influence of topography and crustal magnetic anomalies on the distribution of water ice in the lunar south pole region. *Journal of Geophysical Research: Planets*, 131, e2026JE009774. <https://doi.org/10.1029/2026JE009774>

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Citron, R. I., **L. L. Hood**, and S. T. Stewart (2025) Lunar crustal magnetization sourced via the delivery of iron-rich ejecta from basin-forming impacts. *The Planetary Science Journal*, 6:158 (18 pp), <https://doi.org/10.3847/PSJ/addf36>

Hoopes, C. A., **L. L. Hood**, and T. J. Galarneau Jr. (2024) Lagged response of MJO convection and Precipitation to solar ultraviolet variations on intraseasonal time scales. *Geophysical Research Letters*, 51, e2023GL107701. <https://doi.org/10.1029/2023GL107701>

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- Wieczorek, M., B. P. Weiss, D. Breuer, D. Cébron, M. Fuller, I. Garrick-Bethell, J. Gattacceca, J. S. Halekas, D. J. Hemingway, **L. L. Hood**, M. Laneuville, F. Nimmo, R. Oran, M. E. Purucker, T. Rückriemen, K. M. Soderlund, and S. M. Tikoo (2023) Lunar magnetism, *Rev. Mineralogy & Geochemistry*, 89, 207-241. <http://dx.doi.org/10.2138/rg.2023.89.05>
- Hood, L. L.**, Bryant, I., and J. van der Leeuw (2022) Lunar magnetic anomalies and polar ice, *Geophys. Res. Lett.*, 49, e2022GL100557. <https://doi.org/10.1029/2022GL100557>
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SYNERGISTIC ACTIVITIES

Examples of Outside Service to the Scientific Community:

- (1) Service on review panels for existing and planned NASA spacecraft missions and for a series of NASA research and analysis programs (an average of about one per year in the last 10 years)
- (2) Reviewer of submitted manuscripts for professional journals such as *Journal of Geophysical Research*, *Journal of the Atmospheric Sciences*, *Atmospheric Chemistry and Physics*: 50 manuscripts during the last 5 years; recipient of 2 AGU editor's citations for excellence in refereeing, in 2013, *Geophysical Research Letters* and in 2024, *JGR Atmospheres*.
- (3) Participant in the QBO Initiative (QBOi) activity of SPARC intended to better understand the stratospheric quasi-biennial oscillation and its impacts on tropospheric weather and climate
- (4) Participant in a SPARC SOLARIS-HEPPA task force, led by Katja Matthes, to recommend a new prescribed 11-year ozone signal for CMIP-6, Nov. 2014
- (5) Participant in SolarMIP, a project sponsored by SPARC SOLARIS-HEPPA, to evaluate solar signals in CMIP-5 climate models, 2014-2015
- (6) Participant in "The Effects of Solar Variability on Earth's Climate: A Workshop", sponsored by Space Studies Board, National Academy of Science, Boulder, Colorado, Sept. 8-9, 2011.
- (7) Co-author of a report assessing the progress of the NASA Living With a Star Targeted Research and Technology (TR & T) program on achieving the sun-climate strategic goal, 2012.
- (8) Chair, Solar-Terrestrial Working Group, International Commission on the Middle Atmosphere (ICMA); International Association of Meteorology and Atmospheric Sciences (IAMAS), 1992-2003.
- (9) Contributor to *Scientific Assessment of Ozone Depletion 2006*, World Meteorological Organization, Global Ozone Research and Monitoring Project, Report No. 50, one of several scientific and technical reports that earned the Intergovernmental Panel on Climate Change (IPCC) the 2007 Nobel Peace Prize.
- (10) Member, Total Ozone Mapping Spectrometer (TOMS) team and co-recipient of the William T. Pecora award, 2008.

THESIS ADVISOR AND POSTGRADUATE SCHOLAR SPONSOR

Natasha E. Trencham (post-doc Nov. 2021-June 2023; currently at Columbia University, N.Y.); C. Andrew Hoopes (HAS department, Ph.D., May, 2025); Malori A. Redman, (M.S., 2019); Dr. John McCormack (Ph. D., 1997, currently at NRL, Washington, D. C.); David Zaff (M. S. 1995); Shawn Rossi (M. S. 1999); Matthew Beulen (M. S. 1999); Prof. Fred Ciesla (Ph. D., 2005 & postdoc, LPL, currently at Dept. of Geophysical Sciences, University of Chicago); Naydene Hays (grad. student, 2006-07), Dr. Nicola Richmond (postdoc and research associate, LPL, 2003-2010); Dr. Natalia Artemieva (research associate, LPL, 2008), Dr. Boris Soukharev (research associate, LPL, 2003-2012), Cameron Williams (grad. student, LPL, 1989-90), Aramis Zakharian (grad. student, LPL, 2000-01), John Jirikowic (grad. student, LPL, 1991-93).

Total number of grad. students advised: 11; total number of postdoctoral scholars sponsored: 5.