

Derek Gardner



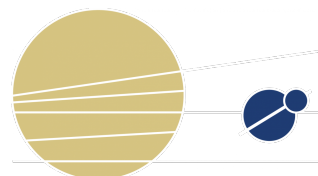
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Team affiliations:

- LPL ROCKET LAB 220
- *Exocube Satellite Mission*
- LUNAR@MCMP-SOLAR

Current position

Postdoctoral Research Associate, LPL
University of Arizona(UA)- Tucson

Areas of specialization

Aeronomy, Planetary Atmospheres, Remote Sensing, Spectroscopy

Appointments held

Sept-2017	Postdoctoral Research Assistant, University of Wisconsin(UW)-Madison
2010-2017	Graduate Research & Teaching Assistant, UW-Madison
2005-2010	Undergraduate Research Assistant, UW-Parkside

Education

2017	PHD in Physics, UW- Madison Dissertation: <i>Interferometric Investigations of Exospheric Hydrogen Balmer Emissions.</i>
2010	Dbl. BSC in Physics & Chemistry, UW- Parkside

Selected publications & talks

JOURNAL ARTICLES

- 2019 Geocoronal Hydrogen Emission Variation Over Two Solar Cycles (2019) Nossal, S.M., Mierkiewicz, E.J., Roesler, F.L., Woodward, R.C., **Gardner, D.D.**, Haffner, L.M.
J. Geophys. Res. Space Physics doi: 2019JA026903. (*under review in publication*)
- 2018 High-resolution, ground-based observations of the lunar sodium exosphere during the LADEE mission (2018) Kurupparatchi, D.C.P., Mierkiewicz, E.J., Oliverson, R.J., Sarantos, M., Derr, N.J., Gallant, M.A., Rosborough, S.A., Freer, C.W., Spalsbury, L.C., **Gardner, D.D.**, Lupie, O.L., Roesler F.L.
J. Geophys. Res. Planets doi: 2018JA005717.
- 2017 Constraining Balmer α fine structure excitation in geocoronal hydrogen (2017) **Gardner, D.D.**, Mierkiewicz, E.J., Roesler, F.L., Nossal, S.M., Haffner, L.M.
J. Geophys. Res. Space Physics doi: 2017JA024055.
- 2017 First performance results of a new field-widened spatial heterodyne spectrometer for geocoronal H research (2017) **Gardner, D.D.**, Mierkiewicz, E.J., Roesler, F.L., Harlander, J.M., Jaehnig, K.P., Nossal, S.M., and Haffner, L.M.
J. Geophys. Res. Space Physics doi: 2016JA022625.

CONFERENCE PRESENTATIONS

- 2017 Coincident Balmer airglow observations for fine-structure cascade constraints, AGU.
2016 FW-SHS Calibration Methods, MTSSP Conference Proceedings, Boulder, Co.
2015 Exocube Mission Overview (update), CEDAR Workshop.
2014 First Balmer alpha Airglow, T Observations using FW-SHS, CEDAR Workshop.
2013 Spatial Heterodyne Spectrometer Calibration, CEDAR Workshop.

Grants, honors & awards

- 2010 Graduated Magna Cum Laude, with Chancellors Award for outstanding academic achievements, community and campus service, and student leadership.
2009 NSF STEM Science Scholarship.
2008 Robert J. Bauer Scholarship, Kay Carter Scholarship in Chemistry.

Teaching & mentoring

- 2010-2017 Physics 201, 202, 207, 208 (Calculus based); UW- Madison
2009 Physics Lab; UW- Parkside
2007 Chemistry; UW- Parkside

References

Drs. [James Lawler](#), [Ed Mierkiewicz](#), [Jeff Schmidt](#), [Susan Nossal](#) & [Fred Roesler](#)