

Shawn D. Domagal-Goldman
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EDUCATION

Ph.D., Astrobiology and Geosciences, August 2007 from the Pennsylvania State University
M.S. in Geology, May 2002 from the University of Rochester
B.S. in Physics, May 2001 from the University of Rochester

POST-GRADUATE EMPLOYMENT

2018-present: Branch Chief, Planetary Systems Lab, NASA Goddard Space Flight Center
2012 – 2018: Research Space Scientist, Planetary Environments Lab, NASA Goddard Space Flight Center
2010 – 2012: NASA Postdoctoral Program Fellow, NASA Headquarters
2008 – 2010: Research Associate, University of Washington Astronomy Department
2007 – 2008: Research Associate, Penn State Dept. of Geosciences

AWARDS

Kavli Frontiers of Science Fellow, 2011 and 2018
NASA Early Career Scientist Award, 2016
Presidential Early Career Award in Science and Engineering, 2015

SELECTED PROFESSIONAL LEADERSHIP POSITIONS

Co-lead, Steering Council, Nexus for Exoplanet Systems Science 2015-present
Deputy Study Scientist, LUVVOIR Mission Concept Study. 2016-2019
Member, Science and Technology Definition Team, HabEx Mission Concept Study. 2016-2019
Member, ExoPlanet Assessment Group (ExoPAG) Executive Council. 2015 – 2018
Co-chair, Science Organizing Committee, CCTP III Meeting. 2018
Co-lead, Exoplanet Biosignatures Workshop Without Walls, 2017
Member, Exoplanet-Starshade (Exo-S) STDT. 2013 – 2016
Member, AT LAST Science Definition Team. 2013 - 2016
Co-Editor, The Astrobiology Primer, 2nd Edition, 2009-2016
Science Organizing Committee Facilitator, CCTP II Meeting, 2014 – 2015
Member, GSFC Science Director's Committee. February, 2013 - 2015.
Member, Lunar and Planetary Science Organizing Committee, 2014.
Co-organizer, Astrobiology Future Roadmapping Workshop. 2013 - 2013.
Member, Working Group on Agency Grand Challenges for NASA. 2013.
Co-Editor, Special Issue on Mars Analogue Sites, in press with Icarus. 2011 - 2013.

SELECTED PUBLICATIONS

LUVVOIR Team. "The LUVVOIR Mission Concept Study Final Report." arXiv preprint arXiv:1912.06219 (2019).
Gaudi, B.S., Seager, S., Mennesson, B., Kiessling, A., Warfield, K., Cahoy, K., Clarke, J.T., **Domagal Goldman, S.**, Feinberg, L., Guyon, O. and Kasdin, J., 2020. The Habitable Exoplanet Observatory (HabEx) Mission Concept Study Final Report. *arXiv preprint arXiv:2001.06683*.

- Badhan, M. A., Wolf, E. T., Kopparapu, R. K., Arney, G., Kempton, E. M.-R., Deming, D., & **Domagal-Goldman, S. D.** (2019). Stellar Activity Effects on Moist Habitable Terrestrial Atmospheres Around M dwarfs. *Submitted for publication. ArXiv Preprint ArXiv:1902.04086.*
- Meadows, V. S., Arney, G. N., Schwieterman, E. W., Lustig-Yaeger, J., Lincowski, A. P., Robinson, T., Domagal-Goldman, S. D., Deitrick, R., Barnes, R. K., Fleming, D. P., & others. (2018). The habitability of Proxima Centauri b: environmental states and observational discriminants. *Astrobiology, 18*(2), 133–189.
- Arney, G., **Domagal-Goldman, S. D.**, & Meadows, V. S. (2018). Organic haze as a biosignature in anoxic Earth-like atmospheres. *Astrobiology, 18*(3), 311–329.
- Domagal-Goldman, S. D.**, N. Kiang, and N. Parenteau, eds. (2018). “Exoplanet Biosignatures.” *Astrobiology 18*(6).
- Harman, C. E., & **Domagal-Goldman, S.** (2018). Biosignature False Positives. *Handbook of Exoplanets*, 1–22.
- Harman, C. E., Felton, R., Hu, R., **Domagal-Goldman, S. D.**, Segura, A., Tian, F., & Kasting, J. F. (2018). Abiotic O₂ Levels on Planets around F, G, K, and M Stars: Effects of Lightning-produced Catalysts in Eliminating Oxygen False Positives. *The Astrophysical Journal, 866*(1), 56.
- Arney, G. N., Meadows, V. S., **Domagal-Goldman, S. D.**, Deming, D., Robinson, T. D., Tovar, G., Wolf, E. T., & Schwieterman, E. (2017). Pale orange dots: the impact of organic haze on the habitability and detectability of Earthlike exoplanets. *The Astrophysical Journal, 836*(1), 49.
- Kopparapu, R. K., Ramirez, R. M., Schottelkotte, J., Kasting, J. F., **Domagal-Goldman, S.**, & Eymet, V. (2017). VizieR Online Data Catalog: Habitable zones around main-sequence stars (Kopparapu+, 2014). *VizieR Online Data Catalog, 178.*
- Domagal-Goldman, S. D.** (2017). The Power of Self-Skepticism in Astrobiology. *Astrobiology*, Volume 17, Issue 10, 2017, pp.956-957
- Arney, G. N., **Domagal-Goldman, S. D.**, Deming, D., Robinson, T., & others. (2017). Pale Orange Dots: the Impact of Organic Haze on the Habitability and Detectability of Earthlike Exoplanets. *The Astrophysical Journal*, Volume 836, Issue 1, article id. 49.
- Sebree, J. A., Stern, J. C., Mandt, K. E., **Domagal-Goldman, S. D.**, & Trainer, M. G. (2016). 13C and 15N fractionation of CH₄/N₂ mixtures during photochemical aerosol formation: Relevance to Titan. *Icarus, 270*, 421–428.
- Domagal-Goldman, S. D.**, Wright, K. E. eds. (2016). “The Astrobiology Primer v2.0.” *Astrobiology 16* (8).
- Domagal-Goldman, S. D.**, Segura, A., Claire, M. W., Robinson, T. D., & Meadows, V. S. (2014). Abiotic ozone and oxygen in atmospheres similar to prebiotic Earth. *The Astrophysical Journal, 792*(2), 90.
- Domagal-Goldman, S. D.**, Meadows, V. S., Claire, M. W., & Kasting, J. F. (2011). Using Biogenic Sulfur Gases as Remotely Detectable Biosignatures on Anoxic Planets. *Astrobiology, 11*(5), 419–441.
- Domagal-Goldman, S. D.**, Paul, K. W., Sparks, D. L., & Kubicki, J. D. (2009). Quantum chemical study of the Fe(III)-desferrioxamine B siderophore complex-Electronic structure, vibrational frequencies, and equilibrium Fe-isotope fractionation. *Geochimica Et Cosmochimica Acta, 73*(1), 1–12.
<http://doi.org/10.1016/j.gca.2008.09.031>
- Domagal-Goldman, S. D.**, & Kubicki, J. D. (2008). Density functional theory predictions of equilibrium isotope fractionation of iron due to redox changes and organic complexation. *Geochimica Et Cosmochimica Acta, 72*(21), 5201–5216. <http://doi.org/10.1016/j.gca.2008.05.066>