

Germán Martínez

Contact Information

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Education

Ph.D. (summa cum laude), **Universidad Complutense de Madrid**, Spain, 2010
Thesis: "Characterization of the Martian Planetary Boundary Layer"
Advisors: Prof. Luis Vázquez and Prof. Francisco Valero

Certificado de Aptitud Pedagógica (~M.Ed.), **Universidad Complutense de Madrid**, Spain, 2007

M.S., Atmospheric Sciences, **Universidad Complutense de Madrid**, Spain, 2007

B.S., Physics, **Universidad Complutense de Madrid**, Spain, 2005

Appointments

Assistant Research Scientist, **University of Michigan**, 2013-present

Postdoctoral Research Fellow, **University of Michigan**, 2011-2013

Visiting Scientist, **University of Bergen**, Norway, 2010-2011

Research Assistant, **Universidad Complutense de Madrid**, Spain, 2009-2010

Research Assistant, **Arquimea Ingeniería, S.L.**, Spain, 11/2007-10/2008

Research Assistant, **Universitat Politècnica de Catalunya**, Spain, 08/2007-10/2007

Research Assistant, **Instituto Nacional de Técnica Aeroespacial**, Spain, 09/2005-07/2007

Honors and Awards

Spain's prime radio network Cadena SER "Calle Radio Murcia" Award, 2018
Given to individuals who have excelled in cultural, scientific, technical, humanitarian or social spheres in an exemplary and meritorious manner.

NASA's Mars Science Laboratory extended mission, Group Achievement Award, 2017

NASA's Mars Science Laboratory mission, Group Achievement Award, 2015

UCM-EEA Abel Predoc Grant, European Economic Area, 2010

Universidad Complutense de Madrid "Exención de tasas" Award, 2006
Fellowship covering full tuition for the PhD program. Awarded to 5% of applicants.

Graduated from High School with an award as best student, Murcia, Spain, class 1995

Teaching

CLASP 749: Climate and Space Sciences Seminar, Fall 2016 and Winter 2017
1 credit graduate upper-level course, University of Michigan

AOSS 350: Atmospheric Thermodynamics, Winter 2013 and 2014
4 credit undergraduate upper-level course, University of Michigan

Climate Risks and Environmental Impacts, 2010
M.S. course offered by the Spanish Meteorology Agency and Universidad Complutense de Madrid, Spain

Physics and Chemistry, 2007
High School introductory course, Murcia, Spain

Mentoring

PhD Advisor, Erik Fischer, 2018
University of Michigan, now Research Fellow at University of Michigan

Master's Advisor, Antonio Joaquín Segura-García, 2018
International University of Valencia, Spain

PhD Advisor, Álvaro de Vicente Retortillo, 2017
Universidad Complutense de Madrid, Spain, now Research Fellow at University of Michigan

Undergraduate mentor, Cauê Borlina, 2013-2016
University of Michigan, now PhD student at MIT

Service Review Panels

Proposal reviewer for Europlanet 2020 Research Infrastructure, Call #5, 2018

Proposal reviewer for Europlanet 2020 Research Infrastructure, Call #4, 2018

Proposal reviewer for NASA Solar System Workings Program, 2018

Reviewer for University of Michigan Engineering Graduate Symposium, 2017-2018

Proposal reviewer for NASA Earth and Space Science Fellowship Program, 2016-2017

Proposal reviewer for NSF Antarctic Earth Sciences Program, 2016

Panelist and proposal reviewer for NASA Mars Data Analysis Program, 2015

PhD Committee Activity

PhD Thesis Advisory Committee Member for Iñaki Ordóñez-Etxeberria, 2018
Universidad del País Vasco, Spain

PhD Thesis Advisory Committee Member for Erik Fischer, 2018
Climate and Space Sciences and Engineering, University of Michigan

PhD Thesis Advisory Committee Member for Deepak Singh, 2016
Climate and Space Sciences and Engineering, University of Michigan

Other

PhD Candidates Committee Member, 2014-2018
Climate and Space Sciences and Engineering, University of Michigan

Chair of the session "Mars Atmosphere", 49th Lunar and Planetary Science Conference 2018

Chair of the session "The Dynamical Martian Atmosphere", Division for Planetary Sciences and European Planetary Science Congress, 2016

Peer reviewer of Space Science Reviews, Reviews of Geophysics, Scientific Reports, Journal of Geophysical Research, Icarus, Quarterly Journal of the Royal Meteorological Society, Astrobiology, Planetary and Space Science and others

Memberships

American Geophysical Union (AGU), 2012-present

Mission Participation

NASA Mars 2020, Co-I of MEDA instrument, 2014-present

NASA Mars Science Laboratory, team member of REMS instrument, 2013-present

Refereed Journal Articles

(Underlined name = supervised postdoc grad or undergrad student)

36-32. 5 manuscripts in preparation led by non-UofM researchers.

31. Martínez, G. M. et al., Surface energy budget at the MSL site during the 2018/a, global dust storm, *J. Geophys. Res.: Planets* (special issue; in preparation), 2019.

30. Vicente-Retortillo, A., G. M. Martínez, N. O. Renno, C. E. Newman, M. T. Lemmon, M. I. Richardson, A. R. Vasavada, Radiative environment and dust deposition and lifting at Gale Crater during the 2018 Global Dust Storm, *J. Geophys. Res.: Planets* (special issue; in preparation), 2019.

29. Vicente-Retortillo, A., G. M. Martínez, N. Renno, M. Lemmon, Generation of UV Radiation Data Products at Gale Crater by correcting REMS UV Data from Dust Deposition and Sensor's Angular Response, *J. Geophys. Res.: Planets* (in preparation), 2019.

28. Fischer, E., G. M. Martínez, N. Renno, L. K. Tamppari and A. Zent, New results of relative humidity at Mars' Phoenix landing site, *J. Geophys. Res.: Planets* (in preparation), 2019.

27. Moores, J. E., R. Gough, G. M. Martínez, P.-Y. Meslin, C. Smith, S. Atreya, P. Mahaffy, C. Newman, C. Webster, The methane seasonal cycle at Gale Crater, Mars suggests adsorption-mediated microseepage, *Nature Geosciences* (submitted), 2019.

26. Renno, N., R. Backhus, C. Cooper, J. M. Flatico, E. Fischer, L. C. Greer, M. J. Krasowski, T. Kremic, G. M. Martínez, N. F. Prokop and A. Vicente-Retortillo, A Simple Instrument Suite for Characterizing Habitability and Weathering: The Modern Aqueous Habitat Reconnaissance Suite (MAHRS), *Astrobiology* (in press), 2019.

25. Guzewich, S. D., M. Lemmon, C. L. Smith, G. M. Martínez, A. Vicente-Retortillo, C. E. Newman, M. Baker, C. Campbell, B. Cooper, J. Gómez-Elvira, A.-M. Harri, D.

Hassler, F. J. Martín-Torres, T. McConnochie, J. E. Moores, H. Kahanpää, A. Khayat, M. I. Richardson, M. D. Smith, R. Sullivan, M. de la Torre-Juarez, A. R. Vasavada, D. Viúdez-Moreiras, C. Zeitlin, M.-P. Zorzano, Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm, *Geophys. Res. Lett.*, 46, <https://doi.org/10.1029/2018GL080839>, 2018.

24. Vicente-Retortillo, A., **G. M. Martínez**, N. Renno, C. E. Newman I. Ordóñez-Etxeberria, M. T. Lemmon, M. I. Richardson, R. Hueso and A. Sánchez-Lavega, Seasonal Deposition and Lifting of Dust on Mars as Observed by the Curiosity Rover, *Scientific Reports*, 8(1), 17576, 2018.

23. Gough, R. V., K. M. Primm, E. G. Rivera-Valentin, **G. M. Martínez**, M. A. Tolbert, Solid-solid hydration and dehydration of Mars-relevant chlorine salts: Implications for Gale Crater and RSL Locations, *Icarus*, 321, 1-13, 2018.

22. Primm, K. M., R. V. Gough, J. Wong, E. G. Rivera-Valentin, **G. M. Martínez**, J. V. Hogancamp, P. D. Archer, D. W. Ming, M. A. Tolbert, The Effect of Mars-relevant soil analogs on the Water Uptake of Magnesium Perchlorate and Implications for the Near-Surface of Mars, *J. Geophys. Res.: Planets*, 123(8), 2076-2088, 2018.

21. Webster, C. R., P. R. Mahaffy, S. K. Atreya, J. Moores, G. J. Flesch, C. Malespin, C. McKay, **G. M. Martínez**, C. L. Smith, F. J. Martin-Torres, J. Gomez-Elvira, M.-P. Zorzano, M. H. Wong, M. G. Trainer, J. L. Eigenbrode, D. P. Glavin, A. Steele, D. Archer Jr., B. Sutter, P. J. Coll, C. Freissinet, P.-Y. Meslin, A. Pavlov, D. Keymeulen, L. E. Christensen, R. V. Gough, S. P. Schwenzer, R. Navarro-Gonzalez, J. Pla-García, S. C. R. Rafkin, A. Vicente-Retortillo, H. Kahanpää, D. Viúdez-Moreiras, M. D. Smith, A.-M. Harri, M. Genzer, D. Hassler, M. Lemmon, J. Crisp, S. P. Sander, R. W. Zurek and A. Vasavada, Background levels of methane in Mars' atmosphere show strong seasonal variations, *Science* 360(6393), 1093-1096, 2018.

20. Valentin-Rivera, E. G., R. Gough, V. Chevrier, K. M. Primm, **G. M. Martínez**, M. Tolbert, Constraining the potential liquid water environment at Gale crater, Mars, *J. Geophys. Res.: Planets*, 123, 1156-1167, 2018.

19. Vaniman, D. T., **G. M. Martínez**, E. B. Rampe, T. F. Bristow, D. F. Blake, A. H. Yen, D. W. Ming, W. Rapin, P.-Y. Meslin, J. M. Morookian, R. T. Downs, S. J. Chipera, R. V. Morris, S. M. Morrison, A. H. Treiman, C. N. Achilles, J. P. Grotzinger, R. M. Hazen, J. A. Crisp, Gypsum, bassanite, and anhydrite at Gale crater, Mars, *American Mineralogist*, 103(7), 1011-1020, 2018.

18. Pérez-Izquierdo, J., E. Sebastián, **G. M. Martínez**, A. Bravo, M. Ramos, J. A. Rodríguez-Manfredi, The Thermal Infrared Sensor (TIRS) of the Mars Environmental Dynamics Analyzer (MEDA) Instrument onboard Mars 2020, A general description and performance analysis, *Measurement*, 122, 432-442, 2018.

17. McConnochie, T. H., M. D. Smith, M. J. Wolff, S. Bender, M. Lemmon, R. C. Wiens, S. Maurice, O. Gasnault, A.-M. Harri, M. Genzer, O. Kempainen, **G. M. Martínez**, J. Lasue, L. DeFlores, D. Blaney, D. R. Johnson, J. F. Bell III, Retrieval of Water Vapor Column Abundance and Aerosol Properties from ChemCam Passive Sky Spectroscopy, *Icarus*, 307, 294-326, 2018.

16. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno, M. Lemmon, and M. de la Torre-Juárez, Determination of dust aerosol particle size at Gale Crater using REMS UVS and Mastcam measurements, *Geophys. Res. Lett.*, 44(8), 3502-3508, 2017.

15. **Martínez, G. M.**, C. N. Newman, A. Vicente-Retortillo, E. Fischer, N. Renno, M. Richardson, A. Fairén, M. Genzer, S. D. Guzewich, R. M. Haberle, A.-M. Harri, O. Kempainen, M. Lemmon, M. D. Smith, M. de la Torre-Juárez and A. Vasavada, The Modern Near-surface Martian Climate: A Review from In-situ Meteorological data from Viking to Curiosity, *Space Sci. Rev.*, 1-44, 2017.
14. Vicente-Retortillo, A., M. Lemmon, **G. M. Martínez**, F. Valero, L. Vázquez and M. L. Martín, Seasonal and interannual variability of solar radiation at Spirit, Opportunity and Curiosity landing sites, *Física de la Tierra*, 28, 111-127, 2016.
13. **Martínez, G. M.**, M. de la Torre-Juárez, A. Vicente-Retortillo, O. Kempainen, N. Renno and M. Lemmon, An overview of the environmental conditions at Gale Crater from MSL/REMS measurements, *Física de la Tierra* (Invited), 28, 163-179, 2016.
12. Fischer, E., **G. M. Martínez** and N. O. Renno, Formation and Persistence of brine on Mars: Experimental simulations throughout the diurnal cycle at the Phoenix landing site, *Astrobiology*, 16(12), 937-948, 2016.
11. Rapin, W., P.-Y. Meslin, S. Maurice, D. Vaniman, M. Nachon, N. Mangold, S. Schröder, O. Gasnault, O. Forni, R. C. Wiens, **G. M. Martínez**, A. Cousin, V. Sautter, J. Lasue and D. Archer, Hydration state of calcium sulfates in Gale Crater: identification of bassanite veins, *Earth Planet. Sci. Lett.*, 452, 197-205, 2016.
10. **Martínez, G. M.**, E. Fischer, N. O. Rennó, E. Sebastián, O. Kempainen, N. Bridges, C. S. Borlina, P.-Y. Meslin, M. Genzer, A.-M. Harri, A. Vicente-Retortillo, M. Ramos, M. de la Torre-Juárez, F. Gómez, J. Gómez-Elvira and the REMS Team, Likely frost events at Gale crater: Analysis from MSL/REMS measurements, *Icarus*, 280, 93-102, 2016.
9. Vicente-Retortillo, A., F. Valero, L. Vázquez and **G. M. Martínez**, A model to calculate solar radiation fluxes on the Martian surface, *Journal of Space Weather and Space Climate*, 5, A33, 2015.
8. **Martínez, G. M.**, N. O. Renno, E. Fischer, C. S. Borlina, B. Hallet, M. de la Torre-Juárez, A. Vasavada, M. Ramos, V. Hamilton, J. Gómez-Elvira, R. M. Haberle and the REMS Team, Surface Energy Budget and Thermal Inertia at Gale Crater: Calculations from Ground-Based Measurements, *J. Geophys. Res.: Planets* 119.8: 1822-1838, 2014.
7. Fischer, E., **G. M. Martínez**, H. Elliott and N. O. Renno, Experimental evidence for the formation of liquid saline water on Mars, *Geophys. Res. Lett.*, 41, 2014.
6. **Martínez, G. M.**, F. Valero, L. Vázquez and H. Elliott, The Martian Planetary Boundary Layer: Turbulent Kinetic Energy and Fundamental Similarity Scales, *Solar System Research* (Invited), 47(6), 446-453, 2013.
5. **Martínez, G. M.** and N. O. Renno, Water and Brines on Mars: Current Evidence and Implications for MSL, *Space Sci. Rev.*, 75(1-4), 29-51, 2013.
4. **Martínez, G. M.**, N. O. Renno and H. Elliott, The Evolution of the Albedo of Dark Spots Observed on Mars Polar Region, *Icarus*, 221, 816-830, 2012.
3. **Martínez, G. M.**, F. Valero and L. Vázquez, TKE Budget in the Convective Martian PBL, *Q. J. R. Meteorol. Soc.*, 137(661), 2194-2208, 2011.

2. **Martínez, G. M.**, F. Valero and L. Vázquez, Characterization of the Martian Convective Boundary Layer, *J. Atmos. Sci.*, 66, Issue 7, 2044–2058, 2009.

1. **Martínez, G. M.**, F. Valero and L. Vázquez, Characterization of the Martian Surface Layer, *J. Atmos. Sci.*, 66, Issue 1, 187–198, 2009.

Oral Presentations

36. Viúdez-Moreiras, D., J. Gomez-Elvira, **G. M. Martínez**, S. Guzewich, C. Newman, J. Pla-García, M. de la Torre-Juarez, A. Vicente-Retortillo, M. D. Smith, A.-M. Harri, M. Genzer, M. Lemmon, J. A. Rodriguez-Manfredi, Effects of the MY34/2018 Global Dust Storm in the Gale Crater Environment as Measured by REMS, *AGU Fall Meeting*, Washington, D.C., US, 2018.

35. Guzewich, S. D., M. Lemmon, C. L. Smith, **G. M. Martínez**, A. Vicente-Retortillo, C. E. Newman, M. Baker, C. Campbell, B. Cooper, J. Gómez-Elvira, A.-M. Harri, D. Hassler, F. J. Martín-Torres, T. McConnochie, J. E. Moores, H. Kahanpää, A. Khayat, M. I. Richardson, M. D. Smith, R. Sullivan, M. de la Torre-Juarez, A. R. Vasavada, D. Viúdez-Moreiras, C. Zeitlin, M.-P. Zorzano, Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm, *AGU Fall Meeting*, Washington, D.C., US, 2018.

34. Rivera-Valentín, E., V. F. Chevrier, R. V. Gough, K. M. Primm, **G. M. Martínez** and M. Tolbert, Atmosphere-regolith interactions with a salty Martian regolith: The role of hydration and deliquescence on the Martian water cycle, *Mars Workshop on Amazonian Climate*, Colorado, US, 2018.

33. Moores, J. E., R. Gough, **G. M. Martínez**, P.-Y. Meslin, C. L. Smith, S. Atreya, P. Mahaffy, C. Newman, and C. Webster, The methane seasonal cycle at Gale Crater, Mars suggests adsorption-mediated microseepage, *Mars Workshop on Amazonian Climate*, Colorado, US, 2018.

32. **Martínez, G. M.**, M. Giuranna, T. McConnochie, L. K. Tamppari, M. D. Smith, A. Vicente-Retortillo, N. O. Renno, J. L. Kloos, J. E. Moores and S. D. Guzewich, Interannual variability of water ice opacity at Gale crater from ground-based Curiosity and orbital Mars Express observations, *49th Lunar and Planetary Science Conference, The Woodlands*, US, 2018.

31. Fischer, E., **G. M. Martínez** and N. O. Renno, The Phoenix Lander's relative humidity sensor recalibration: New results and analysis, *49th Lunar and Planetary Science Conference*, The Woodlands, US, 2018.

30. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno and M. T. Lemmon, Dust deposition and removal from the Mars Science Laboratory UV Sensor, *49th Lunar and Planetary Science Conference*, The Woodlands, US, 2018.

29. Harri, A.-M., M. Genzer, T. H. McConnochie, H. Savijarvi, M. D. Smith, **G. M. Martínez**, M. de la Torre-Juarez, R. M. Haberle, J. Polkko, J. Gomez-Elvira, N. O. Renno, O. Kempainen, M. Paton, M. I. Richardson, C. E. Newman, T. Siili and T. Mäkinen, Surface-atmospheric water cycle at Gale crater through multi-year MSL/REMS observations, *AGU Fall Meeting*, New Orleans, US, 2017.

28. Webster, C. R., P. R. Mahaffy, S. K. Atreya, G. Flesch, C. Malespin, C. McKay, **G. M. Martínez**, J. Moores, C. L. Smith, F. J. Martin-Torres, J. Gomez-Elvira, M.-P.

Zorzano, M. H. Wong, M. G. Trainer, J. L. Eigenbrode, D. P. Glavin, A. Steele, D. Archer Jr., B. Sutter, P. J. Coll, C. Freissinet, P.-Y. Meslin, A. Pavlov, D. Keymeulen, L. E. Christensen, R. V. Gough, S. P. Schwenzer, R. Navarro-Gonzalez, J. Pla-García, S. C. R. Rafkin, A. Vicente-Retortillo, H. Kahanpää, D. Viudez-Moreiras, M. D. Smith, A.-M. Harri, M. Genzer, D. Hassler, M. T. Lemmon, J. A. Crisp, R. W. Zurek and A. R. Vasavada, Mars Methane at Gale Crater Shows Strong Seasonal Cycle: Updated Results from TLS-SAM on Curiosity, *AGU Fall Meeting*, New Orleans, US, 2017.

27. Fischer, E., **G. M. Martínez**, D. Neamati, N. O. Renno, The Formation of Frost and Liquid Brines on Spacecraft Materials at Mars Environmental Conditions, *Division for Planetary Sciences Meeting 49*, 2017.

26. Sebastián, E., J. Pérez, A. Bravo, R. Ferrándiz, M. Fernández, J. A. Rodríguez-Manfredi, **G. M. Martínez**, A. Peña, D. González, J. Moreno, J. de Lucas, P. Hernández, I. Pérez-Grande, A. Chamorro and M. Ramos, Performance analysis of the MEDA's Thermal InfraRed Sensor (TIRS) on board the Mars 2020, *Metrology for AeroSpace (MetroAeroSpace)*, pp. 85-92, IEEE, 2017.

25. Pérez-Izquierdo, J., E. Sebastián, A. Bravo, A. Molina, R. Ferrándiz, M. Fernández, G. Jiménez, J. A. Manfredi, F. J. Meca-Meca, M. Ramos, F. Hänschke, E. Kessler, **G. M. Martínez**, A. Peña, D. González and J. Moreno, The Thermal Infrared Sensor (TIRS) of the Mars Environmental Dynamics Analyzer (MEDA) instrument onboard Mars 2020, *Metrology for AeroSpace (MetroAeroSpace)*, pp. 79-84, IEEE, 2017.

24. Ari-Matti Harri, M. Genzer, J. Gomez-Elvira, H. Savijarvi, T. McConnochie, M. de la Torre-Juarez, **G. M. Martínez**, R. Haberle, J. Polkko, M. Paton, C. Newman, T. Makinen, and L. Vazquez, Humidity cycle at Gale crater through MSL/REMS observations, *EGU General Assembly*, Vienna, Austria, 2017.

23. Fischer, E., **G. M. Martínez**, and N. Renno, Recalibration and analysis of the Phoenix relative humidity sensor data, *48th Lunar and Planetary Science Conference*, The Woodlands, US, 2017.

22. Vaniman, D.T., **G.M. Martínez**, E. B. Rampe, T. F. Bristow, D. F. Blake, A. H. Yen, D. W. Ming, W. Rapin, P.-Y. Meslin, J. M. Morookian, R. T. Downs, S. J. Chipera, R. V. Morris, S. M. Morrison, A.H. Treiman, C. N. Achilles, J. P. Grotzinger, R. M. Hazen, J. A. Crisp, Calcium sulfates at Gale crater and limitations on gypsum stability, *48th Lunar and Planetary Science Conference*, The Woodlands, US, 2017.

21. **Martínez, G. M.**, A. Vicente-Retortillo, A. Fairén, E. Fischer, S. D. Guzewich, R. M. Haberle, O. Kempainen, M. Lemmon, C. Newman, N. Renno, M. Richardson, M. D. Smith, M. de la Torre-Juárez and A. Vasavada, An overview of the dust, CO₂ and water cycle on Mars as revealed from in-situ environmental data from the Viking to the Curiosity Rover, *Sixth International Workshop in the Mars Atmosphere: Modelling and Observations*, Granada, Spain, 2017.

20. Vicente-Retortillo, A., **G. M. Martínez**, N. Renno, M. Lemmon, and M. Torre-Juárez, Variability of dust aerosol particle size at Gale Crater using Mastcam and REMS UV measurements, *Sixth International Workshop in the Mars Atmosphere: Modelling and Observations*, Granada, Spain, 2017.

19. Fischer, E., **G. M. Martínez**, N. Renno, Experimental recreation of the diurnal cycle at the Phoenix landing site - Investigating the formation and persistence of brine, *Sixth*

International Workshop in the Mars Atmosphere: Modelling and Observations, Granada, Spain, 2017.

18. Gómez-Elvira, J., I. Carrasco, A. Lepinette, M. Marín, L. Mora, S. Navarro, V. Peinado, J. Pla-García, J. Torres, D. Viúdez-Moreiras, R. Urqui, M. de la Torre, C. Newman, **G. M. Martínez**, A-M. Harri, M. Genzer, and the REMS team, Gale Atmospheric Evolution along the first two years on Mars using REMS-MSL Data, *Sixth International Workshop in the Mars Atmosphere: Modelling and Observations*, Granada, Spain, 2017.

17. McConnochie, T. M., M. Smith, M. Wolff, S. Bender, M. Lemmon, S. Maurice, O. Gasnault, J. Lasue, P.Y. Meslin, A. M. Harri, M. Genzer, O. Kempainen, **G. M. Martínez**, L. Deflores, J. R. Johnson and J. F. Bell II, Water vapor and aerosols from Chemcam passive sky observations, *Sixth International Workshop in the Mars Atmosphere: Modelling and Observations*, Granada, Spain, 2017.

16. Rodríguez-Manfredi, J. A., F. Gomez, J. Gomez-Elvira, S. Navarro, O. Prieto-Ballesteros, E. Sebastian, M. de la Torre, J. T. Schofield, L. K. Tamppari, I. Arruego, N. T. Bridges, P. G. Conrad, M. Smith, M. Genzer, A-M. Harri, M. Lemmon, **G. M. Martínez**, C. Newman, A. Sanchez-Lavega, M. Ramos, A. Saiz-Lopez, and the MEDA team, Atmospheric Science with the Mars 2020 rover - The MEDA Instrument, *Sixth International Workshop in the Mars Atmosphere: Modelling and Observations*, Granada, Spain, 2017.

15. **Martínez, G. M.**, A. Vicente-Retortillo, O. Kempainen, E. Fischer, A. Fairén, S. D., Guzewich, R. M. Haberle, H. Kahanpää, M. Lemmon, C. Newman, N. Renno, M. Richardson, M. D. Smith, M. de la Torre-Juárez and A. Vasavada, Interannual, seasonal and diurnal Mars surface environmental cycles observed from Viking to Curiosity, *DPS 48/EPSC 11*, Pasadena, US, 2016.

14. Vicente-Retortillo, A., **G. M. Martínez**, N. Renno, M. Lemmon, E. L. Mason, M. Torre-Juárez, Temporal evolution of UV opacity and dust particle size from MSL/REMS measurements, *DPS 48/EPSC 11*, Pasadena, US, 2016.

13. Rodríguez-Manfredi, J.A., M. de la Torre, J. S. Boland, N. T. Bridges, P. Conrad, F. Ferri, M. Genzer, F. Gómez-Gómez, J. Gómez-Elvira, A-M. Harri, O. Kempainen, M. Lemmon, **G. M. Martínez**, S. Navarro, C. Newman, S. Pérez-Hoyos, O. Prieto, M. Ramos, A. Saiz-López, A. Sánchez-Lavega, J.T. Schofield, E. Sebastian, M. Smith, L. K. Tamppari, and the MEDA team, MEDA, The Environmental Dynamics Analyzer from Mars 2020, *3rd International Workshop on Instrumentation for Planetary Missions*, Pasadena, US, 2016.

12. Renno, N. O., E. Fischer and **G. M. Martínez**, Experimental confirmation of liquid brines on Mars, *AGU Fall Meeting*, San Francisco, US, 2015.

11. **Martínez, G. M.**, E. Fischer, H. Elliott, C. S. Borlina and N. O. Renno, Physisorbed liquid-like Water in Mars Gale Crater? *Abgradcon*, Troy, NY, US, 2014.

10. **Martínez, G. M.**, N. O. Renno, E. Fischer, C. S. Borlina, B. Hallet, M. de la Torre-Juárez, A. Vasavada and J. Gómez-Elvira, Ground-Atmosphere Interactions at Gale: Determination of the Surface Energy Budget, Thermal Inertia and Water Sorption on the Regolith, *EGU General Assembly*, Vienna, Austria, 2014.

9. Ramos, M., A. Molina, **G. M. Martínez**, V. Hamilton, M. A. de Pablo, E. Sebastián, N. O. Renno and J. Gómez-Elvira, Heat flux into the soil surface on crater Gale (Mars) from ground (GTS) and air (ATS) temperatures measures by REMS-MSL mission, *4th European Conference on Permafrost*, Évora, Portugal, 2014.
8. **Martínez, G. M.**, N. O. Renno, J. H. Hoffman, H. Elliott and E. Fischer, Near Surface Water Vapor Pressure and Relative Humidity on Mars: New Values obtained from the Phoenix Mass Spectrometer, *44th Lunar and Planetary Science Conference*, The Woodlands, US, 2013.
7. **Martínez, G. M.**, N. O. Renno, H. Elliott and E. Fischer, Present-Day Liquid Water on Mars: Theoretical Expectations, Observational Evidence, and Preferred Locations, *The Present-Day Mars Habitability Conference*, Los Angeles, US, 2013.
6. **Martínez, G. M.**, N. O. Renno and H. Elliott, Composition of Dark Spots in Mars Richardson Crater from the Analysis of HiRISE Images, EGU General Assembly, Vienna, Austria, 2012.
5. Elliott, H., **G. M. Martínez** and N. O. Renno, Characterization of liquid brines under Mars ambient conditions, *Concepts and Approaches for Mars Exploration*, Houston, US, 2012.
4. **Martínez, G. M.**, F. Valero and L. Vázquez, Turbulent Kinetic Energy on Mars: Derivation from ground-based Data, *Fourth International Workshop on the Mars Atmosphere: Modeling and Observations*, Paris, France, 2011.
3. **Martínez, G. M.**, J. Silva, F. Valero and L. Vázquez, TKE Budget in the Convective Martian PBL, *European Science Planetary Congress*, Rome, Italy, 2010.
2. **Martínez, G. M.**, F. Valero and L. Vázquez, Martian Mixed Layer during Pathfinder Mission, European Planetary Science Congress, Munster, Germany, 2008.
1. **Martínez, G. M.**, F. Valero and L. Vázquez, Mars Surface Layer Characterization, *EGU General Assembly*, Vienna, Austria, 2008.

Poster Presentations

49. **Martínez, G. M.**, M. Giurana, T. H. McConnochie, N. Renno, M. Genzer, A.-M. Harri, R. V. Gough, J. Gomez-Elvira, R. Wiens, Interannual, seasonal and diurnal variability of water vapor at Gale Crater, Mars as observed from contemporaneous MSL and MEx measurements, *AGU Fall Meeting, Washington, D.C., US, 2018*.
48. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno, C. E. Newman, M. T. Lemmon, M. I. Richardson, A. R. Vasavada, Radiative environment and dust deposition and lifting at Gale Crater during the 2018 Global Dust Storm, *AGU Fall Meeting, Washington, D.C., US, 2018*.
47. Prats, B. D., M. G. Trainer, P. R. Mahaffy, D. Archer, C. Malespin, S. Teinturier, S. Guzewich, M. T. Lemmon, **G. M. Martínez**, K. A. Gonter, 2018 Mars Global Dust Storm – Effects of Airborne Dust and Particle Deposition on Mars Science Laboratory SAM (Sample Analysis at Mars) Instrument Inlet Cover Actuator Temperatures, *AGU Fall Meeting, Washington, D.C., US, 2018*.

46. Rivera-Valentín, E. G., R. V. Gough, V. F. Chevrier, K. M. Primm, **G. M. Martínez** and M. Tolbert, Constraining the potential liquid water environment at Gale crater, Mars throughout MSL's traverse, *49th Lunar and Planetary Science Conference*, The Woodlands, US, 2018.
45. K. M. Primm, R. V. Gough, E. G. Rivera-Valentín, **G. M. Martínez**, and M. A. Tolbert, Hydration and dehydration of Mars-relevant chloride and perchlorate salts at Gale Crater, *49th Lunar and Planetary Science Conference*, The Woodlands, US, 2018.
44. **Martínez, G. M.**, M. Giuranna, T. H. McConnochie, L. Tamppari, M. D. Smith, A. Vicente-Retortillo, N. O. Renno, J. L. Kloos, J. E. Moores and S. Guzewich, Interannual Variability of Water Ice Clouds at Gale Crater, *AGU Fall Meeting*, New Orleans, US, 2017.
43. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno, M. T. Lemmon and J. Gomez-Elvira, The UV Sensor Onboard the Mars Science Laboratory Mission: Correction and Generation of UV Fluxes, *AGU Fall Meeting*, New Orleans, US, 2017.
42. Pérez-Izquierdo, J., E. Sebastián, **G. M. Martínez**, M. Ramos, A. Bravo, M. Mazo and J. A. Rodríguez-Manfredi, The Thermal Infrared Sensor onboard NASA's Mars 2020 Mission, *AGU Fall Meeting*, New Orleans, US, 2017.
41. Torre-Juarez, M., J. A. Rodríguez-Manfredi, V. Apéstigue-Palacio, J. Boland, M. Genzer, J. Gomez-Elvira, F. Gomez, A.-M. Harri, M. T. Lemmon, A. Lepinette, **G. M. Martínez**, S. Navarro, C. E. Newman, O. Prieto-Ballesteros, A. Sanchez-Lavega, A. Saiz-Lopez, J. T. Schofield, E. Sebastian, M. D. Smith, L. Tamppari, J. Torres and The MEDA instrument team, Mars Environmental Analyzer, an environmental station for Mars 2020, *AGU Fall Meeting*, New Orleans, US, 2017.
40. McConnochie, T. H., M. D. Smith, M. J. Wolff, S. C. Bender, M. T. Lemmon, R. C. Wiens, S. Maurice, O. Gasnault, J. Lasue, P.-Y. Meslin, A.-M. Harri, M. Genzer, O. Kempainen, **G. M. Martínez**, L. P. DeFlores, D. L. Blaney, J. R. Johnson, J. F. Bell III, M. G. Trainer, F. Lefèvre, S. K. Atreya, P. R. Mahaffy, M. H. Wong, H. B. Franz, S. Guzewich, G. L. Villanueva and A. S. Khayat, ChemCam Passive Sky Spectroscopy at Gale Crater, Mars: Interannual Variability in Dust Aerosol Particle Size, Missing Water Vapor, and the Molecular Oxygen Problem, *AGU Fall Meeting*, New Orleans, US, 2017.
39. Fischer, E., **G. M. Martínez** and N. O. Renno, Results of the Phoenix Relative Humidity Sensor Recalibration, *AGU Fall Meeting*, New Orleans, US, 2017.
38. **Martínez, G. M.**, A. Vicente-Retortillo, N. O. Renno and J. Gómez-Elvira, Correction of MSL/REMS UV data from dust deposition and sensor's angular response, *EGU General Assembly*, Vienna, Austria, 2017.
37. Vicente-Retortillo, A., **G. M. Martínez**, N. Renno, M. Lemmon, and M. Torre-Juárez, Dust aerosol particle size at the Mars Science Laboratory landing site, *EGU General Assembly*, Vienna, Austria, 2017.
36. **Martínez, G. M.**, A. Vicente-Retortillo, N. O. Renno and J. Gómez-Elvira, Generation of UV radiation data at Gale crater by correcting REMS UV measurements from dust deposition and sensor's angular response, *48th Lunar and Planetary Science Conference*, The Woodlands, US, 2017.

35. Webster, C. R., P. R. Mahaffy, S. K. Atreya, G. J. Flesch, M. A. Mischna, P.-Y. Meslin, K. A. Farley, P. G. Conrad, L. E. Christensen, A. A. Pavlov, **G. M. Martínez**, J. Martín-Torres, J. Gómez-Elvira, M.-P. Zorzano, T. H. McConnochie, M. H. Wong, T. Owen, J. L. Eigenbrode, D. P. Glavin, A. Steele, C. A. Malespin, P. D. Archer Jr., B. Sutter, P. Coll, C. Freissinet, C. P. McKay, J. E. Moores, S. P. Schwenzer, J. C. Bridges, R. Navarro-Gonzalez, R. Gellert, M. T. Lemmon, N. O. Rennó, A. de Vicente-Retortillo, Low Background Levels of Mars Methane at Gale Crater Indicate Seasonal Cycle: Updated Results from TLS-SAM on Curiosity, *AGU Fall Meeting*, San Francisco, US, 2016.
34. J. Pérez, E. Sebastián, A. Bravo, R. Ferrándiz, M. Ramos, **G. M. Martínez**, and J. A. Rodríguez-Manfredi, The MEDA's Radiometer TIRS for the MARS2020 Mission, *DPS 48/EPSC 11*, Pasadena, US, 2016.
33. Torre-Juárez, M., J. Gómez-Elvira, S. D. Guzewich, M. T. Lemmon, **G. M. Martínez**, E. Mason, S. Navarro, C. E. Newman, M. D. Smith, A. Vicente-Retortillo, Influence of the atmospheric opacity cycle on the near surface environment of Gale Crater on Mars, *DPS 48/EPSC 11*, Pasadena, US, 2016.
32. **Martínez, G. M.**, T. McConnochie, N. O. Renno, P.-Y. Meslin, E. Fischer, A. Vicente-Retortillo, C. S. Borlina, O. Kempainen, M. Genzer, A.-H. Harri, M. de la Torre-Juárez, M. P. Zorzano, J. M. Torres, N. Bridges, S. Maurice, O. Gasnault, J. Gómez-Elvira and R. Wiens, Diurnal variation of atmospheric water vapor at Gale crater: Analysis from ground-based measurements, *EGU General Assembly*, Vienna, Austria, 2016.
31. Harri, A.-H., M. Genzer, O. Kempainen, J. Gómez-Elvira, T. McConnochie, H. Savijärvi, J. Polkko, M. de la Torre-Juárez, C. Newman, **G. M. Martínez**, M. Paton, J. Martín Torres, R. Haberle, L. Vázquez, M. Hieta, T. Mäkinen, W. Schmidt, T. Siili and the MSL Science Team, Water cycle at Gale Crater through MSL REMS observations, *EGU General Assembly*, Vienna, Austria, 2016.
30. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno, M. T. Lemmon, E. L. Manson and M. de la Torre-Juárez, A novel technique to calculate UV opacity at Gale Crater from MSL/REMS measurements, *EGU General Assembly*, Vienna, Austria, 2016.
29. Bridges, N., B. Ehlmann, R. Ewing, C. Newman, R. Sullivan, P. Conrad, A. Cousin, K. Edgett, M. Fisk, A. Fraeman, J. Johnson, M. Lamb, M. Lapotre, S. Le Mouélic, **G. M. Martínez**, P.-Y. Meslin, L. Thompson, J. van Beek, A. Vasavada and R. Wiens, Overview of Initial Results From Studies of the Bagnold Dune Field on Mars by the Curiosity Rover, *EGU General Assembly*, Vienna, Austria, 2016.
28. **Martínez, G. M.**, T. McConnochie, N. O. Renno, P.-Y. Meslin, E. Fischer, Vicente-Retortillo, C. S. Borlina, O. Kempainen, M. Genzer, A.-H. Harri, M. de la Torre-Juárez, M. P. Zorzano, J. M. Torres, N. Bridges, S. Maurice, O. Gasnault, J. Gómez-Elvira, R. Wiens and the REMS Team, Diurnal variation of near-surface atmospheric water vapor at Gale Crater: Analysis from REMS and Chemcam measurements, *47th Lunar and Planetary Science Conference*, The Woodlands, US, 2016.
27. Bridges, N. T., B. L. Ehlmann, R. C. Ewing, C. E. Newman, R. Sullivan, P. G. Conrad, A. Cousin, K. S. Edgett, M. R. Fisk, A. A. Fraeman, J. R. Johnson, M. Lamb, M. Lapotre, S. Le Mouélic, **G. M. Martínez**, P.-Y. Meslin, P. Pinet, L. M. Thompson, J. van Beek, A. R. Vasavada and R. C. Wiens, Investigation of the Bagnold Dune field by the Curiosity rover: Overview of initial results from the first study of an active dune field on

another planet, *47th Lunar and Planetary Science Conference*, The Woodlands, US, 2016.

26. **Martínez, G. M.**, E. Fischer, N. O. Renno, E. Sebastián, O. Kempainen, N. Bridges, C. S. Borlina, P-Y. Meslin, M. Genzer, A-H. Harri, A. Vicente-Retortillo, M. de la Torre-Juárez, M. Ramos, F. Gómez and J. Gómez-Elvira, Analysis of likely Frost Events and day-to-night Variability in near-surface Water Vapor at Gale, *AGU Fall Meeting*, San Francisco, US, 2015.

25. Fischer, E., **G. M. Martínez**, N. O. Renno, L. Tamppari and A. Zent, Analysis of the Phoenix Mission's Thermal and Electrical Conductivity Probe (TECP) Relative Humidity Data, *AGU Fall Meeting*, San Francisco, US, 2015.

24. Vicente-Retortillo, A., **G. M. Martínez**, N. O. Renno, M. Lemmon, E. Mason and M. de la Torre-Juárez, UV Opacity at Gale Crater from MSL/REMS Measurements, *AGU Fall Meeting*, San Francisco, US, 2015.

23. Deepak, S., M. Flanner, E. Millour and **G. M. Martínez**, Impact of Dust on Mars Surface Albedo and Energy Flux with LMD General Circulation Model, *AGU Fall Meeting*, San Francisco, US, 2015.

22. Mason, E., M. Lemmon, M. de la Torre-Juárez, A. Vicente-Retortillo and **G. M. Martínez**, Constraining Atmospheric Particle Size in Gale Crater Using REMS UV Measurements and Mastcam Observations at 440 and 880 nm, *AGU Fall Meeting*, San Francisco, US, 2015.

21. Tamppari, L., J. Rodríguez-Manfredi, M. de la Torre-Juárez, N. Bridges, P. Conrad, M. Genzer, F. Gómez, J. Gómez-Elvira, A-H. Harri, M. Lemmon, **G. M. Martínez**, S. Navarro, C. Newman, S. Pérez-Hoyos, O. Prieto, M. Ramos, A. Saiz-López, A. Sánchez-Lavega, J. Schofield and M. Smith, The Mars Environmental Dynamics Analyzer (MEDA): A Suite of Environmental Sensors for the Mars 2020 Rover, *AGU Fall Meeting*, San Francisco, US, 2015.

20. **Martínez, G. M.**, N. O. Renno, E. Fischer, M. de la Torre-Juárez, P-Y. Meslin, O. Kempainen, M. Genzer, A-M. Harri, M. Ramos, C. S. Borlina, S. Schröder, J. Gómez-Elvira and the REMS team, Potential sub-micrometer-thick frost events and soil water content at Gale Crater: Calculations from MSL/REMS measurements, *46th Lunar and Planetary Science Conference*, The Woodlands, US, 2015.

19. Fischer, E., **G. M. Martínez**, H. Elliott and N. O. Renno, An experimental study on liquid brine formation at Gale Crater, *AGU Fall Meeting*, San Francisco, US, 2014.

18. **Martínez, G. M.**, E. Fischer, N. O. Renno, M. de la Torre-Juárez, P-Y. Meslin, O. Kempainen, M. Genzer, A-M. Harri, M. Ramos, C. S. Borlina, S. Schröder, J. Gómez-Elvira and the REMS Team, Study of potential sub-micrometer-thick frost events and soil water content at Gale Crater, *AGU Fall Meeting*, San Francisco, US, 2014.

17. Vicente-Retortillo, A., F. Valero, L. Vázquez and **G. M. Martínez**, An approach to calculate solar radiation fluxes on the Martian surface, *European Planetary Science Congress*, Cascais, Portugal, 2014.

16. Harri, A-M., M. Genzer, O. Kempainen, J. Gómez-Elvira, J. A. Rodríguez-Manfredi, T. McConnochie, H. Savijärvi, J. Polkko, M. de La Torre-Juárez, M. Mischna, M. Richardson, C. Newman, N. O. Renno, **G. M. Martínez**, S. Rafkin, J. Martín-Torres, M.-

P. Zorzano, R. M. Haberle, L. Vázquez, P-Y. Meslin, M. Komu, T. Makinen, M. Paton, W. Schmidt, T. Siili, M. Wong and the MSL Science Team, MSL In Situ Humidity Observations - the First Martian Year, *European Planetary Science Congress*, Estoril, Portugal, 2014.

15. Fischer, E., **G. M. Martínez**, H. Elliott, C. S. Borlina and N. O. Renno, Experimental Demonstration of the Formation of Liquid Brines under Martian Polar Conditions in the Michigan Mars Environmental Chamber, *EGU General Assembly*, Vienna, Austria, 2014.

14. Rodríguez-Manfredi, J. A., M. de la Torre-Juárez, P. Conrad, M. Lemmon, **G. M. Martínez**, C. Newman, M. Smith, T. Schofield, J. Gómez-Elvira, F. Gómez-Gómez, A.-M. Harri, S. Navarro, O. Prieto, M. Ramos, S. Saiz-Lopez, A. Sánchez-Lavega, E. Sebastián, M. Genzer, O. Kempainen, S. Pérez-Hoyos and N. T. Bridges, MEDA: an environmental and meteorological package for Mars 2020, *45th Lunar and Planetary Science Conference*, The Woodlands, US, 2014.

13. Rodríguez-Manfredi, J. A., M. de la Torre-Juárez, N. Bridges, P. Conrad, F. Ferri, M. Genzer, F. Gómez, J. Gómez-Elvira, A.-M. Harri, O. Kempainen, M. Lemmon, **G. M. Martínez**, S. Navarro, C. Newman, S. Pérez-Hoyos, O. Prieto-Ballesteros, M. Ramos, A. Saiz-López, A. Sánchez-Lavega, J. Schofield, E. Sebastián, M. Smith and L. Tamppari, MEDA: an environmental and meteorological package for the Mars 2020 mission, *International Workshop on Instrumentation for Planetary Missions (IPM)*, Greenbelt, Maryland, US, 2014.

12. Renno, N. O., **G. M. Martínez**, M. Ramos, B. Hallet, F. Gómez, I. Jun, M. Fisk, J. Gómez-Elvira, V. Hamilton, M. Mischna, R. Sletten, J. Martín-Torres, M. de La Torre-Juárez, A. Vasavada and M.-P. Zorzano, Ground-Atmosphere Interactions at Gale, *AGU Fall Meeting*, San Francisco, US, 2013.

11. Fischer, E., **G. M. Martínez**, H. Elliot, C. S. Borlina and N. O. Renno, The Michigan Mars Environmental Chamber: Preliminary Results and Capabilities, *AGU Fall Meeting*, San Francisco, US, 2013.

10. **Martínez, G. M.**, N. O. Renno, H. Elliott and E. Fischer, Current Evidence of liquid water on Mars, *Abgradcon*, Montreal, Canada, 2013.

9. **Martínez, G. M.**, N. O. Renno, J. H. Hoffman, H. Elliott and E. Fischer, Phoenix Mass Spectrometer: New values for the near-surface relative Humidity and water vapor pressure, *EGU General Assembly*, Vienna, Austria, 2013.

8. Elliott, H., **G. M. Martínez**, D. Halleaux, S. Braswell and N. O. Renno, An environmental chamber to investigate liquid saline water in the Martian polar region, *EGU General Assembly*, Vienna, Austria, 2012.

7. Elliott, H., **G. M. Martínez**, D. Halleaux, S. Braswell and N. O. Renno, The Michigan Mars Environmental Chamber (MMEC): Determining the conditions at which liquid brines form on Mars, *43rd Lunar and Planetary Science Congress*, The Woodlands, Texas, US, 2012.

6. Elliott, H., **G. M. Martínez**, D. Halleaux and N. O. Renno, A Miniature Sensor for Measuring Soil Wetness and Searching for Brines on Mars and Beyond, *AGU Fall Meeting*, San Francisco, US, 2011.

5. Elliott, H., **G. M. Martínez**, D. Halleaux and N. O. Renno, The University of Michigan microwave soil moisture sensor: detection of liquid brines on Mars, *Fifth Mars Polar Science Conference*, Fairbanks, Alaska, US, 2011.

4. **Martínez, G. M.**, H. Elliott, D. Halleaux and N. O. Renno, The Michigan Mars Environmental Chamber: Determining the environmental conditions at which liquid brines form on Mars, *SPASA Advanced School of Astrobiology*, Sao Paulo, Brazil, 2011.

3. **Martínez, G. M.**, F. Valero and L. Vázquez, Martian Planetary Boundary Layer Characterization under Convective Conditions, *Third International Workshop on the Mars Atmosphere: Modeling and Observations*, Williamsburg, Virginia, US, 2008.

2. **Martínez, G. M.**, F. Valero and L. Vázquez, Characterization of the Martian Planetary Boundary Layer at the Pathfinder Location, *International Workshop on Environmental Turbulence*, Baeza, Jaén, Spain, 2008.

1. **Martínez, G. M.**, F. Valero and L. Vázquez, J. Cano, A characterization of the Mars Surface Layer, *European Meteorological Society*, San Lorenzo del Escorial, Madrid, Spain, 2007.

Invited Talks

JPL/Caltech, Pasadena, CA, 2018

Southwest Research Institute, Boulder, CO, 2017

American Institute of Aeronautics and Astronautics at the University of Michigan, 2015

Centro de Astrobiología, Madrid, Spain, 2013

Geophysical Institute, University of Bergen, Bergen, Norway, 2010

National Renewable Energy Center (CENER), Pamplona, Spain, 2010

Facultad de Matemáticas, Universidad Complutense de Madrid, Madrid, Spain, 2009

Istituto Nazionale di Astrofisica Osservatorio di Capodimonte, Naples, Italy, 2009

Finnish Meteorological Institute, Helsinki, Finland, 2007

Media Coverage

Interviewed and quoted in Spain's national newspaper (El Español) on involvement in NASA's exploration of Mars, 2018:
https://www.lespanol.com/ciencia/20180820/paradoja-german-murciano-investiga-nasa-encontrar-marte/330967591_0.html

Interviewed and quoted in Spain's national tech magazine (Nobbot) on involvement in NASA's exploration of Mars, 2018: <https://www.nobbot.com/futuro/german-martinez-el-murciano-que-busca-agua-marciana/>

Interviewed in Spain's national prime radio network (Cadena SER) on involvement in NASA's exploration of Mars, 2018:
http://play.cadenaser.com/audio/cadenaser_laventana_20180822_190000_200000/

http://cadenaser.com/emisora/2018/05/29/radio_murcia/1527599733_521504.html

Quoted in Spain's national newspaper (20 Minutos) on award given by Spain's premier radio network Cadena SER "Calle Radio Murcia", 2018:

<https://www.20minutos.es/noticia/3339760/0/ser-conmemora-su-85-aniversario-con-celebracion-sus-primeros-premios-calle-radio-murcia-final-mayo/>

Interviewed and quoted in Spain's regional newspapers (Grupo Vocento) on involvement in NASA's exploration of Mars, 2018: <https://www.hoy.es/sociedad/marte-dias-noches-20180902001410-ntvo.html>

<https://www.ideal.es/sociedad/marte-dias-noches-20180904091828-ntvo.html>

Interviewed and quoted in Spain's regional newspaper (La Verdad) on involvement in NASA's exploration of Mars, 2018: <https://www.laverdad.es/murcia/depende-solo-dinero-20180826005411-ntvo.html>

Interviewed in Spain's regional radio network (Onda Regional de Murcia) on involvement in NASA's exploration of Mars, 2018:

<https://www.orm.es/programas/murycia/murycia-german-martinez-un-murciano-trabajando-para-la-nasa/>

Quoted in Spain's regional radio (Radio Euskadi) on involvement in NASA's Mars 2020 mission, 2017: <http://www.eitb.eus/es/radio/radio-euskadi/programas/la-mecanica-del-caracol/detalle/5246600/mars-2020-futuro-exploracion-marciana-que-piensas-crispr/>

Interviewed and quoted in a NASA's press release on Seasonal Cycles in Curiosity's First Two Martian Years, 2016: <https://www.nasa.gov/feature/jpl/second-cycle-of-martian-seasons-completing-for-curiosity-rover>

Quoted in popular scientific magazines on Mars Curiosity Rover's findings, 2016:

<http://www.astronomy.com/news/2016/05/second-cycle-of-martian-seasons-completing-for-curiosity-rover>

<http://phys.org/news/2016-05-curiosity-mars-rover-martian-year.html>

<http://www.scientificamerican.com/article/mystery-of-martian-methane-deepens>

Former PhD Student quoted in Spain's national newspaper (La Vanguardia) on research about a new Martian radiative model, 2015:

<http://www.lavanguardia.com/vida/20151215/30825681257/disenan-un-modelo-que-calcula-la-radiacion-solar-en-marte.html>

Quoted in Spain's national (ABC) and regional (La Verdad) newspapers on research about water on Mars, 2014: <http://www.abc.es/ciencia/20140706/abci-misterio-gotas-patas-phoenix-201407031821.html>

<http://www.laverdad.es/murcia/201407/17/paso-cerca-vida-marte-20140717021213-v.html>

Outreach

Invited talk on the "Exploration of Mars" at "Nuestra Señora de Atocha", a Primary School in Murcia, Spain, 2016.

Invited talk, Ann Arbor Science & Skeptics, Ann Arbor, MI, 2013-2014

Current, Pending and Denied Projects

(* = includes funding for postdoc or grad student)

1. *Recalibration and Analysis of the Phoenix Mission's Thermal and Electrical and Conductivity Probe (TECP) Relative Humidity Data (**Current**)

Role:	PI
PI:	Germán Martínez
Direct Sponsor:	NASA
Program:	NNH14ZDA001N-MDAP
Total Award/Budget:	\$301,192
Begin Date:	6/10/15
End Date:	6/9/19

2. *Mars Environmental Dynamics Analyzer (MEDA) (**Current**)

Role:	PI
PI:	Germán Martínez
Direct Sponsor:	Jet Propulsion Lab (JPL)
Prime Sponsor:	NASA
Total Award/Budget:	\$121,666
Begin Date:	10/29/16
End Date:	9/31/19

3. Investigating the Martian near-surface water exchange: Insights from comparisons at polar and equatorial latitudes (**Current**)

Role:	Co.-I
PI:	Edgard G. Rivera-Valentin
Direct Sponsor:	NASA
Program:	NNH14ZDA001N-MDAP
Begin Date:	9/1/18
End Date:	8/30/19

4. MSL Science Operations: Re-Extended Mission (**Current**)

Role:	Sr. Personnel
PI:	Nilton Renno
Direct Sponsor:	Jet Propulsion Lab (JPL)
Prime Sponsor:	NASA
Total Award/Budget:	\$252,000
Begin Date:	10/01/18
End Date:	9/30/19

5. Mars 2020 Mars Environmental Dynamics Analyzer (MEDA), Phase E (**Pending**)

Role:	PI
PI:	Germán Martínez
Direct Sponsor:	Jet Propulsion Lab (JPL)
Prime Sponsor:	NASA
Total Award/Budget:	\$269,968
Begin Date:	1/10/19
End Date:	9/30/23

6. *Analysis of the interannual variability of the Aphelion Cloud Belt (**Pending**)

Role:	PI
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PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH18ZDA001N-MDAP
Total Budget: \$418,898.00
Begin Date: 8/1/19
End Date: 7/31/22

7. Measuring Molecular Oxygen, Water Vapor, and Aerosols with ChemCam Passive Sky Observations (**Pending**)

Role: **Collaborator**
PI: Timothy McConnochie
Direct Sponsor: NASA
Program: NNH18ZDA001N-MDAP
Begin Date: 8/1/19
End Date: 7/31/22

8. * Experimental Investigation of Diurnal Surface-Atmosphere Exchange of H₂O on Mars: Physisorption, Salt Hydration and Brine Kinetics (**In Preparation**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH18ZDA001N-SSW
Total Budget: \$540,000.00
Begin Date: 9/1/19
End Date: 8/31/22

9. * Characterization of the Radiative Properties and Particle Size of Atmospheric Dust during Martian Dust Storms (**In Preparation**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH18ZDA001N-SSW
Total Budget: \$270,000.00
Begin Date: 9/1/19
End Date: 8/31/21

10. The formation of liquid brines and its implications for life on Mars and beyond (**In preparation**)

Role: **Co-I**
PI: Nilton Renno
Direct Sponsor: NASA
Program: NNH17ZDA001N-HW
Total Budget: \$745,387
Begin Date: 8/1/19
End Date: 7/31/22

11. * Estimations of atmospheric aerosol opacity and dust accumulation on the solar panels of the InSight lander (**Not Selected**)

Role: **PI**
PI: Germán Martínez

Direct Sponsor: NASA
Program: NNH17ZDA001N-INSTPSP
Total Budget: \$399,576.00
Begin Date: 6/1/18
End Date: 5/31/22

12. * Investigation of brine kinetics on Mars (**Not Selected**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH17ZDA001N-SSW
Total Budget: \$368,806.00
Begin Date: 9/1/18
End Date: 8/31/20

13. * Analysis of the impact of dust and water ice clouds on Mars' atmospheric thermal structure and surface energy budget (**Not selected**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH17ZDA001N-SSW
Total Budget: \$550,420.00
Begin Date: 8/1/18
End Date: 7/31/21

14. * Analysis of the interannual variability of the Aphelion Cloud Belt: Impact on the water cycle and near-surface environmental conditions (**Not Selected**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH17ZDA001N-MDAP
Total Budget: \$351,566.00
Begin Date: 5/1/18
End Date: 4/30/21

15. Constraining the form of H₂O in the shallow subsurface of Mars Special Regions and major water reservoirs from mid to equatorial latitudes (**Not Selected**)

Role: **PI**
PI: Germán Martínez
Direct Sponsor: NASA
Program: NNH17ZDA001N-MDAP
Total Budget: \$341,371.00
Begin Date: 5/1/18
End Date: 4/30/21

16. * Generation of UV Radiation Data Products at Gale Crater by correcting REMSUV Data from Dust Deposition and Sensor's Angular Response (**Not Selected, but then funded internally by the Mars Science Laboratory mission**)

Role: **PI**
PI: Germán Martínez

Direct Sponsor:	NASA
Program:	NNH16ZDA001N-PDART
Total Budget:	\$279,130
Begin Date:	6/1/2017
End Date:	7/31/2019

Languages

Spanish: Native language

English: Fluent level at speaking, reading, and writing

German: Intermediate level at speaking, reading, and writing

Italian: Basic level at speaking and reading