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DATE AND PLACE OF BIRTH: January 8, 1957. Rio de Janeiro, Brazil

NATIONALITIES: U.S., U.K., and Brazil

EDUCATION:

Ph.D.: Planetary Science, 1986, University College (University of London, UK).
"Comparative Studies of Volcanic Features on Earth and Mars".

B.Sc. (Hons): Astronomy, 1978, University College (University of London, UK).

PRESENT POSITION:

Principal Scientist, JPL, Earth and Planetary Sciences Division

Major current roles:

*Lead Scientist and Group Supervisor, Geophysics and Planetary Geosciences
Investigation Scientist, Cassini Radar Team
Co-Lead, Cassini Satellites Orbiter Science Team
Principal Investigator, Planetary Geology and Geophysics Program
Principal Investigator, Cassini Data Analysis Program*

Main current responsibilities:

Represent Cassini Titan Radar Mapper instrument to the Cassini Project. Plan science observations of Saturn, its moons, and rings using the Radar instrument. Co-Chair Cassini's Satellites Orbiter Science Team. Geologic interpretation of Titan data from the Cassini Radar Mapper.

Leadership and management of Geophysics and Planetary Geosciences research group

Research Advisor to NASA Postdoctoral Research Fellows (Karl Mitchell, Giuseppe Mitri).

Research on Io's volcanic activity using Galileo NIMS data and integration of science results with those from other Galileo investigations. Collaborator on New Horizons mission for studies of Io during the Jupiter flyby in 2007.

Main fields of expertise: Planetary geology and volcanology, with particular expertise on Io and Titan and analysis of data from flight projects (Galileo, Cassini, New Horizons).

Approach to research: Use of remote sensing data collected from spacecraft to further develop theoretical models of surface processes, in close collaboration with instrument investigations. Recent research efforts have been directed towards:

- (i) Analysis of Io's infrared spectra obtained by Galileo's Near-Infrared Mapping Spectrometer (NIMS)
- (ii) Analysis of geologic features on Titan using the Cassini Radar Mapper, with particular emphasis on cryovolcanic features.

COMMITTEES AND SERVICE EXPERIENCE:

Current:

Member (elected), Division for Planetary Sciences, AAS, Committee (elected 2007)

Member, AAAS Annual Meeting Program Committee (representing planetary sciences, astronomy, education, public outreach, and diversity), 2007-2010

Board member, National Academy of Sciences/National Research Council's Space Studies Board: Committee to study the next announcement of opportunity (AO) for NASA's New Frontiers missions, 2007-2008.

Member, NASA's Saturn/Titan Science Definition Team Study (2008-present)

Chair, Outer Solar System Task Group (IAU Working Group for Planetary System Nomenclature), 2006-present (Member, 2005-2006)

Member, Advisory Council, The Planetary Society (2007-present)

Member (elected), American Astronomical Society's Astronomy Education Board, 2006-present.

Member, Editorial Board, Praxis-Springer Publishing Company, 2004-present.

Research Advisor for the National Research Council's postdoctoral NASA Research Associateship Program 1994-present (currently has two postdocs).

Harlow Shapley Visiting Lecturer, American Astronomical Society, 2006-present.

Previous:

Member, NASA Titan Flagship Mission Science Definition Team (2007)

Chair, Nominating Committee, American Astronomical Society's Division for Planetary Sciences, 2005-2006 (Member 2003-2005).

Member, DPS 2006 Program Committee

Member, Program Committee, Demeter International Symposium, Toulouse, 14-16 June, 2006.

Advisor to Local Organizing Committee, American Astronomical Society's Division for Planetary Sciences Annual Meeting, 2006.

Member, Subcommittee on Diversity, American Geophysical Union, 2001-2003

Member, Steering Committee of the Commission for Large-Volume Basaltic Provinces, International Association of Volcanology and Chemistry of the Earth's Interior, 2000-2004.

Member, NASA Review Panel (Mars Data Analysis Program, 1998-2001)

Member, Committee for Minorities and Women in Geosciences, Geological Society of America (1996-1999).

Co-chair for Local Organizing Committee, American Astronomical Society Division for Planetary Sciences 2000 meeting

Chief organizer for Cassini-Huygens session at the American Association for the Advancement of Science meeting, Washington, DC, February 2005.

Co-organizer, United Nations/European Space Agency workshops on Basic Space Science, 1992 (San Jose, Costa Rica) and 1994 (Cairo, Egypt).

Convener of numerous meeting sessions, including American Geophysical Union (2000, 2002, 2005, 2006, 2007), American Association for the Advancement of Science (2005), International Association of Volcanology and Chemistry of the Earth's Interior (2008), AGU Western Pacific Geophysics Meeting (2008), International Geological Congress (2000)

Member, JPL Director's Advisory Committee for Women, 1992-1994.

CAREER HISTORY:

Sept. 2004-present	Principal Scientist, Earth and Space Sciences Division, JPL (Group Supervisor since 2005)
Sept. 2002-Sept. 2004:	Research Scientist, Senior A, Earth and Space Sciences Division, JPL.
Sept. 1995-2002:	Research Scientist, Earth and Space Sciences Division, JPL.
July 1991-Sept.1995:	Scientist, Earth and Space Sciences Division, JPL.
July 1989-July 1991:	National Research Council Resident Research Associate, JPL.
Feb. 1989-July 1989:	Visiting Researcher, Osservatorio Vesuviano, Naples, Italy.

March 1988-Jan. 1989: Acting Curator of Astronomy and Acting Head of the Astronomy Section, Old Royal Observatory, Greenwich, U.K.

June 1985-March 1988: Curator of Modern Astronomy and Deputy Head of Astronomy Section, Old Royal Observatory, Greenwich, U.K.

Oct. 1978-Dec. 1984: Teaching and Research Assistant: University College London; teaching Planetary Geology, Observational Astronomy and Introductory Astronomy courses.

AWARDS AND HONORS:

From NASA:

Exceptional Service Medal, 2007

From the Girl Scouts of America:

WINGS (Women Inspiring Next Generations) Award, 2007

From City of Bezerros, Brazil:

Experimental rocket launch site for high school and college students named “Dr. Rosaly Lopes”, 2007

From the American Association for the Advancement of Science:

AAAS Fellow, elected 2006

From Women at Work and JPL’s Diversity and Inclusion Committee:

Women at Work Medal of Excellence, 2006

From the American Astronomical Society, Division for Planetary Sciences:

Carl Sagan Medal, 2005

From the Guinness Book of World Records (2006 edition):

Discoverer of the greatest number of active volcanoes

From Grove of Hope (Education charitable organization):

Angel Award (for outreach efforts in Morocco in 2005)

From GEMS Television, Miami:

GEMS Woman of the Year in Science and Technology, 1997

From the Comision Femenil Mexicana Nacional:

Latinas in Science Award, 1990

From the Jet Propulsion Laboratory:

Bonus Award for Outstanding Accomplishment, Level B, 1999

Bonus Award for Outstanding Accomplishment, Level C, 2001

Bonus Award for Outstanding Accomplishment, Level C, 2002

Exceptional Technical Excellence, Galileo Science Planning and Operations Team, 2002
SPOT Award, Discovery Core Review Panel, 2004
Bonus Award, Cassini Science Planning Tour Integration Team, 2004
Team Bonus Award, Cassini Science Team, 2005
Team Bonus Award, Flagship Study Scientists, 2008

NASA Group Achievement Awards:

Group Achievement Award, Galileo Gaspra Encounter Team, 1993
Group Achievement Award, Project Galileo Team, 1996
Group Achievement Award, Galileo Ida Encounter/Dactyl Discovery Team, 1995
Group Achievement Award, Galileo Orbital Operations Recovery Team, 1997
Group Achievement Award, Galileo Project Team, 1998
Group Achievement Award, Galileo Orbital Operations Recovery Team, 2000
Group Achievement Award, Galileo Millenium Mission Operations Team, 2003
Group Achievement Award, Cassini Flight Team, 2005

PROFESSIONAL SOCIETIES:

Fellow (elected, 2006), American Association for the Advancement of Science
Member, International Astronomical Union
Member, American Geophysical Union
Member, Geological Society of America
Member and committee member, American Astronomical Society, Division for Planetary Sciences
Member, International Association of Volcanology and Chemistry of the Earth's Interior
Fellow, Royal Geographical Society
Fellow, Explorers Club

SELECTED INVITED TALKS (since 2000)

American Geophysical Union Fall Meeting, December 2007.
Asia Oceania Geosciences Society, Bangkok, Thailand, August 2007 (2 invited talks)
American Geophysical Union, Spring meeting, Acapulco, Mexico, May 2007
American Association for the Advancement of Science, February 2007
American Geophysical Union Fall Meeting, December 2006.
Geological Society of America annual meeting, Pardee Keynote Symposium “Celebrating 25 Years of Solar System Exploration”, November 2006.
Geological Society of America annual meeting, Pardee Keynote Symposium, “Geosciences and the Media”, November 2006.
Asia Oceania Geosciences Society, July 2006 (2 invited talks)
Geological Society of America annual meeting, Pardee Keynote Symposium, October 2005
European Geosciences Union meeting, April 2005
Jupiter After Galileo and Cassini, A Euroconference about the Giant Planets, Lisbon, June 2002
American Geophysical Union Fall Meeting, December 2001
Jupiter: Planet, Satellite & Magnetosphere Conference, Boulder, Colorado, June 2001
American Geophysical Union Fall Meeting, December 2000
Division for Planetary Sciences of the American Astronomical Society, October 2000

International Geological Congress, August 2000

SELECTED SEMINARS (since 2000)

Université Sidi Mohamed Ben Abdellah, Fes, Morocco, November 2007
George Washington Academy, Casablanca, Morocco, November 2007
Mauricio de Nassau University, Recife, Brazil, November 2007
Recife Catholic University, Recife, Brazil, November 2007
Mt. San Antonio College, Walnut, California, November 2006
University of Wyoming Anadarka Distinguished Lecturer Series, September 2006
University of Southern California, April 2006
University of California, Santa Cruz (IGPP), April 2006
University of Illinois, Walgreen Lecture, March 2006
University of Nevada, Las Vegas, October 2005
University of California at Los Angeles (IGPP), June 2005
Jet Propulsion Laboratory, Division 31, Science System Engineering Group March 2005
Cassini Tour Science Talk, JPL, December 2004
California State University, Los Angeles, May 2004
California State University, Northridge, April 2004
Foothill College, San Francisco, December 2003
University of Southern California, November 2002
University of Coimbra, Portugal, June 2002
University of California at Berkeley, April 2002
Jet Propulsion Laboratory, Division 32, July 2001
University of Arizona, February 2001
Sonoma State University, January 2000

SELECTED OUTREACH ACTIVITIES:

Public lectures: Over 150 (U.S., England, Brazil, Italy, Portugal, Mexico, Morocco, and Singapore).

Media Interviews: Over 450 (U.S., England, Brazil, Portugal, Mexico, France, Italy, Morocco), including press (e.g. New York Times, Los Angeles Times), radio (e.g. NPR's Science Friday), and TV (e.g. Nightline, evening news, talk shows, documentaries).

TV Documentaries and shows (US only):

History Channel's "Prehistoric Megastorms" (due out May 2008)
"Heads Up" Science Series, Knowledge TV, Canada, episode on New Horizons (January 2008)
History Channels' "Search for E.T.", in "The Universe" series (August 2007)
PBS "Wired Science" interview on volcanoes (October 2007)
Discovery Channel's "Titan: Rendezvous with Saturn's Moon" (updated version, May 2007)
National Geographic Television's "Naked Science: Deadliest Planets" (December 2006)
History Channel's "Ask Mr. Know-It-All", pilot episode (as expert on volcanic dust), 2006
History Channel's "Inside the Volcano" (December 2006)
Discovery Channel's "Rewind 2006" (science stories of 2006, December 2006)

National Geographic Television's "Hollywood Science: Forces of Nature" (April 2006)
Nightline's "Galileo" (September 2003)
Discovery Channel's "Planet Storm" (2001)
Discovery Channel's "95 Worlds and Counting" (2001)

Films/software:

JPL's "*Journey to the Planets and Beyond*", 2006
"2020 Vision" film, Institution of Engineering and Technology, UK, 2006
"Starry Night" Astronomy software, 2003
JPL/NASA's film "*40 Years of Space Exploration*", 2002
KCET Television in *Hispanic Heritage Month*, 1990-1992

Profiled in the following books:

"*Women of Space*" by Laura S. Woodmansee (Apogee Books, 2003)
"Spotlight on Scientists", Curriculum Guide for Science Enrichment (grades 5-6) by J. Sinsel (Carson-Dellosa, 2006)
"Extreme Science Jobs" (Scholastic Books, 2004)
"What do you Want to be?" (The Sally Ride Science Club, 2004)
"What do you Want to be? Explore Space Sciences", NASA/Sally Ride Science poster (2005), winner of the 2006 Distinguished Achievement Award from the Association of Educational Publishers (AEP).
"The Inside Story of Jupiter", by B. Geiger, Sally Ride Science, 2006.
"Focus on Earth Science", Cambridge Physics Outlet, middle school science book, 2006
"Adventurous Dreams, Adventurous Lives: Today's Explorers Recall the Youthful Dream Launching their Remarkable Lives" (Rocky Mountain Books, September 2007)
"Lava Scientist: Careers on the edge of volcanoes" (*Extreme Scientists series*), by Sara Latta (Enslow Publishing, due out in 2009)

Press conferences (since 2000):

Press Conference, Division for Planetary Sciences meeting, October 2007
Press Conference, American Geophysical Union Fall Meeting, December 2006
Press Conference, Division for Planetary Sciences meeting, October 2006
Press Conference, Division for Planetary Sciences meeting, September 2005
Press Conference, European Geosciences Union Meeting, May 2005
Press Conference at DPS meeting, November 2001
Galileo Press Conference at AGU, December 2001
NASA Space Science Update (press conference), November 1999
Galileo Press Conference at AGU, December 1999
Galileo Press Conference at AGU, December 1996
Galileo Press Conference at AGU, May 2000
Press Conference at DPS meeting, October 2000

MAIN PUBLICATIONS:

(Books, Refereed Publications, Non-Refereed Publications, Popular-level articles, Abstracts)

1. Books:

Lopes, R. and T.K. Gregg (Eds): *Volcanic Worlds: Exploring the Solar System Volcanoes*. Foreword by Sally Ride. Praxis Publishing Company (Springer-Verlag, 2004). Undergraduate-level book reviewing volcanism in the Solar System in terms of bodies (e.g. Moon, Venus, Io) and processes (e.g. cryovolcanism, volcano/ice interactions). Authors of individual chapters are Rosaly Lopes, Tracy Gregg, Ellen Stofan, Joy Crisp, Susan Sakimoto, Mary Chapman, Gudrun Larsen, Kathy Cashman, Susan Kieffer, Lisa Gaddis, and Louise Prockter.

Lopes, R.: *The Volcano Adventure Guide*. Cambridge University Press (2005). A popular-level book about volcanoes on Earth and how best to visit and learn about them. The book includes an introduction to volcanology.

Lopes, R. and J.R. Spencer (Eds): *Io After Galileo*. Praxis Publishing Company (Springer-Verlag, 2006). Research-level book on Io focusing on results from the Galileo mission. Chapters range from formation of Io to surface, atmosphere, and torus. Authors of individual chapters include Bill McKinnon, Bill Moore, Gerry Schubert, Fran Bagenal, Robert Carlson, Nick Schneider, and Emmanuel Lellouch.

Lopes, R. and M. Carroll: *Alien Volcanoes*. Foreword by Arthur C. Clarke. John Hopkins University Press, *in press (release date April 2008)*. Popular-level book about volcanoes on Earth and in the Solar System.

Lopes, R. *Volcanoes*. OneWorld Publications, Oxford, England. In preparation. Undergraduate-level book about volcanism on Earth and the solar system.

Fagents, S.A., T.K.P. Gregg, and R.M.C. Lopes (Editors). *Modeling Volcanic Processes: The Physics and Mathematics of Volcanism*. Cambridge University Press, in preparation. Graduate-level book on physical volcanology.

2. Refereed Publications

2008:

78. Lopes, R.M.C., B.J. Buratti, and A. R. Hendrix (2008). The Saturn System's Icy Satellites: New results from Cassini. *Icarus*, 193, 305-308.

77. Gregg, T.K.P. and R.M. Lopes (2008). Lava Lakes on Io: New Perspectives from Modeling. *Icarus*, doi:10.1016/j.icarus.2007.08.042.

76. Hayes, A., O. Aharonson, K. Lewis, K. Mitchell, R. Lorenz, P. Callahan, J. Lunine, R. Lopes, S. Wall, C. Elachi, and the Cassini RADAR Team. Hydrocarbon lakes on Titan: Distribution and interaction with an isotropic porous regolith. Submitted to *Geophys. Res. Lett.*

75. Coustenis, A., and 156 authors including R.M. Lopes (2008): TandEM: Titan and Enceladus Mission. *Astrophysical Instruments and Methods Journal*, in press.
74. Paillou, P., K. Mitchell, S. Wall, C. Wood, R. Lorenz, G. Ruffié, R. Lopes, Pierre Encrenaz (2008): Microwave dielectric constant of liquid hydrocarbons: Application to the depth estimation of Titan's lakes. *Geophys. Res. Lett.*, in press.
73. Lorenz, R.D., K. L. Mitchell, R.L. Kirk, A.G. Hayes, H.A. Zebker, P. Paillou, J. Radebaugh, J.I. Lunine, M.A. Janssen, S.D. Wall, R.M. Lopes, B. Stiles, E.R. Stofan, and the Cassini RADAR Team (2008). Titan's Inventory of Organic Surface Materials. *Geophys. Res. Lett.*, 35, L02206, doi:10.1029/2007GL032118.
72. Lunine, J.I. C. Elachi, S. D. Wall, M. D. Allison, Y. Anderson, R. Boehmer, P. Callahan, P. Encrenaz, E. Flamini, G. Franceschetti, Y. Gim, G. Hamilton, S. Hensley, M. A. Janssen, W. T. K. Johnson, K. Kelleher, R. L. Kirk, R. M. Lopes, R. Lorenz, D. O. Muhleman, R. Orosei, S. J. Ostro, F. Paganelli, Paillou, P., G. Picardi, F. Posa, J. Radebaugh, L. E. Roth, R. Seu, S. Shaffer, L. A. Soderblom, B. Stiles, E.R. Stofan, S. Vetrella, R. West, C. A. Wood, L. Wye, H. Zebker, G. Alberti E. Karkoschka, B. Rizk, E. McFarlane, C. See, and B. Kazeminejad (2008). Cassini RADAR's Third and Fourth Looks at Titan. *Icarus*, in press.
71. Lorenz, R.D., R. M. Lopes, F. Paganelli, J.I. Lunine, R.L. Kirk, L.A. Soderblom, E.R. Stofan, G. Ori, M. Myers, H. Miyamoto, B. Stiles, S.D. Wall, C. A. Wood and the Cassini RADAR Team (2008). Fluvial Channels on Titan: Meteorological Paradigm and Cassini RADAR Observations. *Planetary and Space Science*, in press.
70. Mitri, G., J.I. Lunine, A.P. Showman, and R. Lopes (2008). Resurfacing of Titan by Ammonia-water Cryomagma. *Icarus*, in press.
69. Barnes, J.W., J. Radebaugh, R.H. Brown, S. Wall, L. Soderblom, J. Lunine, D. Burr, C. Sotin, S. Le Mouelic, B.J. Buratti, R. Clarke, K.H. Baines, R. Jaumann, P.D. Nicholson, R.L. Kirk, R. Lopes, R. Lorenz, K. Mitchell, C.A. Wood, and the Cassini RADAR Team (2008). *Journal Geophys. Res.*, in press.
68. Radebaugh, J., R. Lorenz, J. Lunine, S. Wall, G. Boubin, E. Reffet, R. Kirk, R. Lopes, E. Stofan, L. Soderblom, M. Allison, M. Janssen, P. Paillou, and the Cassini RADAR Team (2008). Dunes on Titan Observed by Cassini RADAR. *Icarus*, in press.

2007:

67. Lopes, R., K.L. Mitchell, S.D. Wall, G. Mitri, M. Janssen, S. Ostro, R. L. Kirk, A.G. Hayes, E.R. Stofan, J.I. Lunine, R.D. Lorenz, C. Wood, J. Radebaugh, P. Paillou, H. Zebker, F. Paganelli and the Cassini RADAR Team. The Lakes and Seas of Titan. *Eos*, vol 88, no. 51, 569-576.
66. Lopes, R.M.C., K.L. Mitchell, E.R. Stofan, J. I. Lunine, R. Lorenz, F. Paganelli, R. L. Kirk,

- C.A. Wood, S.D. Wall, L.E. Robshaw, A.D. Fortes, C.D. Neish, J. Radebaugh, E. Reffet, S. J. Ostro, C. Elachi, M. D. Allison, Y. Anderson, R. Boehmer, G. Boubin, P. Callahan, P. Encrenaz, E. Flamini, G. Francescetti, Y. Gim, G. Hamilton, S. Hensley, M. A. Janssen, W. T. K. Johnson, K. Kelleher, D. O. Muhleman, G. Ori, R. Orosei, G. Picardi, F. Posa, L. E. Roth, R. Seu, S. Shaffer, L. A. Soderblom, B. Stiles, S. Vetrella, R.D. West, L. Wye, and H. A. Zebker (2007). Cryovolcanic Features on Titan's Surface as Revealed by the Cassini Titan Radar Mapper. *Icarus*, 186, 395-412.
65. Howell, R.R., and R.M.C. Lopes (2007). The Nature of the Volcanic Activity at Loki: Insights from Galileo NIMS and PPR Data. *Icarus*, 186, pp. 448-461.
64. Stofan, E.R., C. Elachi, J.I. Lunine, R.D. Lorenz, B. Stiles, K. Mitchell, S. Ostro, L. Soderblom, C. Wood, H. Zebker, S. Wall, M. Janssen, R. Kirk, R. Lopes, F. Paganelli, J. Radebaugh, L. Wye, Y. Anderson, M. Allison, R. Boehmer, P. Callahan, P. Encrenaz, E. Flamini, G. Francescetti, Y. Gim, G. Hamilton, S. Hensley, W.T.K. Johnson, K. Kelleher, D. Muhleman, P. Paillou, G. Picardi, F. Posa, L. Roth, R. Seu, S. Shaffer, S. Vetrella, and R. West (2007). The Lakes of Titan. *Nature*, Vol. 445/4 January 2007/doi:10.1038/nature05438.
63. Paganelli, F., M.A. Janssen, B. Stiles, R. West, R.D. Lorenz, J.I. Lunine, S.D. Wall, P. Callahan, R. M. Lopes, E. Stofan, R. Kirk, L. Roth, C. Elachi, and the Cassini RADAR Team (2007). Titan's surface from Cassini RADAR SAR and high resolution radiometry data of the first five flybys. *Icarus*, 191, 211-222, doi:10.1016/j.icarus.2007.04.032.
62. Soderblom, L., J. Anderson, K. Baines, J. Barnes, J. Barrett, R. Brown, B. Buratti, R. Clark, D. Cruikshank, C. Elachi, M. Janssen, R. Jaumann, R. Kirk, E. Karkoschka, S. Lemouelic, R. Lopes, R. Lorenz, J. Lunine, T. McCord, P. Nicholson, J. Radebaugh, B. Rizk, C. Sotin, E. Stofan, T. Sucharski, M. Tomasko, and S. Wall (2007). Correlations between Cassini VIMS Spectra and RADAR SAR Images: Implications for Titan's Surface Composition and the Character of the Huygens Probe Landing Site. *Planetary and Space Science*, 55, 2025-2036.
61. Paganelli, F., M.A. Janssen, R.M. Lopes, E. Stofan, S.D. Wall, R.D. Lorenz, J.I. Lunine, R.L. Kirk, L. Roth, C. Elachi, and the Cassini RADAR Team (2007). Titan's surface from the Cassini RADAR radiometry during SAR mode. *Planetary and Space Science*, Issue EGU 2006, 56, 100-108, doi:10.1016/j.physletb.2003.10.071.
60. Lorenz, R.D., C. A. Wood, J. I. Lunine, S. D. Wall, R. M. Lopes, K. Mitchell, F. Paganelli⁴, L. Wye, C. Tsai, H. Zebker, and the Cassini RADAR Team (2007). Titan's young Surface: Initial Impact Crater Survey by Cassini RADAR and Model Comparison. *Geophysical Research Letters*, vol. 34, L07204, doi:10.1029/2006GRL028971.
59. Radebaugh, J., R. Lorenz, R. Kirk, J. Lunine, E. Stofan, R. Lopes, S. Wall, and the Cassini Radar Team (2007). Mountains on Titan Observed by Cassini RADAR. *Icarus*, 192, 77-91. doi:10.1016/j.icarus.2007.06.020.
58. Spencer, J.R., S.A. Stern, A.F. Cheng, H.A. Weaver, D.C. Reuter, K. Retherford, A. Lunsford, J.M. Moore, O. Abramov, R.M.C. Lopes, J.E. Perry, L. Kamp, M. Showalter,

K.L. Jessup, F. Marchis, P.M. Schenk, C. Dumas. Io Volcanism during the New Horizons Jupiter Flyby: A Major Eruption of the Tvashtar Volcano. *Science*, 318, 240-243.

57. Retherford, K.D., J.R. Spencer, S.A. Stern, J. Saur, D.F. Strobel, A.J. Steffl, G.R. Gladstone, H.A. Weaver, A.F. Cheng, J. Wm. Parker, D.C. Slater, M.H. Versteeg, M.W. Davis, F. Bagenal, H.B. Throop, R.M.C. Lopes, D.C. Reuter, A. Lunsford, S.J. Conard, L.A. Young, and J.M. Moore. Io's Atmospheric Response to Eclipse: UV Aurorae Observations. *Science*, 318, 237-240.

2006:

55. Lopes, R. (2006). Titan: Cassini Reveals a New World. In: "Space Exploration 2007", (B. Harvey, Ed.). Praxis-Springer.
54. Lopes, R.M.C. (2006). Io, the Volcanic Moon. *Encyclopedia of the Solar System*, (Editors: L. McFadden, P. Weissman, and T. Johnson), Academic Press.
53. Stofan E.R., J.I. Lunine, R. Lopes, F. Paganelli, R.D. Lorenz, C.A. Wood, R. Kirk, S. Wall, C. Elachi, L.A. Soderblom, S. Ostro, M. Janssen, J. Radebaugh, L. Wye, H. Zebker, Y. Anderson, M. Allison, R. Boehmer, P. Callahan, P. Encrenaz, E. Flamini, G. Francescetti, Y. Gim, G. Hamilton, S. Hensley, W.T.K. Johnson, K. Kelleher, D. Muhleman, G. Picardi, F. Posa, L. Roth, R. Seu, S. Shaffer, B. Stiles, S. Vetrella, and R. West (2006). Mapping of Titan: Results from the First Two Titan Radar Passes. *Icarus*, 185, issue 2, 443-456.
52. Lorenz, R.D., S. Wall, J. Radebaugh, G. Boubin, E. Reffet, M. Janssen, E. Stofan, R. Lopes, R. Kirk, C. Elachi, J. Lunine, F. Paganelli, L. Soderblom, C. Wood, L. Wye, H. Zebker, Y. Anderson, S. Ostro, M. Allison, R. Boehmer, P. Callahan, P. Encrenaz, G.G. Ori, G. Francescetti, Y. Gim, G. Hamilton, S. Hensley, W. Johnson, K. Kelleher, K. Mitchell, D. Muhleman, G. Picardi, F. Posa, L. Roth, R. Seu, S. Shaffer, B. Stiles, S. Vetrella, E. Flamini, and R. West (2006). The Sand Seas of Titan: Cassini RADAR Observations of Equatorial Fields of Longitudinal Dunes. *Science*, 312, 724-727.
51. Ostro, S.J., R. D. West, M.A. Janssen, R.D. Lorenz, H.A. Zebker, G.J. Black, J.I. Lunine, L.C. Wye, R. M. Lopes, S.D. Wall, C. Elachi, S. Hensley, K. Kelleher, G. A. Hamilton, Y. Gim, Y.Z. Anderson, R.A. Boehmer, W. T. K. Johnson, and the Cassini RADAR Team (2006). Cassini RADAR Observations of Enceladus, Tethys, Dione, Rhea, Iapetus, Hyperion, and Phoebe. *Icarus* 183, 479-490.
50. Elachi, C.; S. Wall, M. Janssen, E. Stofan, R. Lopes, R. Kirk, R. Lorenz, J. Lunine, F. Paganelli, L. Soderblom, C. Wood, L. Wye, H. Zebker, Y. Anderson, S. Ostro, M. Allison, R. Boehmer, P. Callahan, P. Encrenaz, E. Flamini, G. Francescetti, Y. Gim, G. Hamilton, S. Hensley, W. Johnson, K. Kelleher, D. Muhleman, G. Picardi, F. Posa, L. Roth, R. Seu, S. Schaffer, B. Stiles, S. Vetrella, and R. West (2006). Titan Radar Mapper Observations from Cassini's Ta and T3 Fly-bys. *Nature*, vol. 441/8, doi:10.1038/nature0486, p. 709-713.
49. Spencer, J.R., J.C. Pearl, M. Segura, F.M. Flasar, A. Mamoutkine, P. Romani, B.J. Buratti, A.R. Hendrix, L.J. Spilker, R.M.C. Lopes (2006). Cassini Finds Enceladus is Active: Background,

and Composite Infrared Spectrometer (CIRS) Observations of a South Polar Hot Spot. *Science*, vol. 311, pp. 1401-1405.

2005:

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- Howell, R.R. and R. M. Lopes. Temperatures at the Pele Hot Spot on Io from Galileo NIMS Observations. Amer. Astron. Soc. Div. Planet. Sci. meeting, October 2007, Orlando.
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- Wood, C.A., E.R. Stofan, R.D. Lorenz, R.L. Kirk, R.M. Lopes, P. Callahan. Xanadu – Disaggregation of Titan's Bright Terrains. Fire and Ice Workshop, Boulder, August 2007, Abstract # 6082.
- Mitchell, K.L., S.D. Wall, E.R. Stofan, R.M.C. Lopes, M. Janssen, B. Stiles, P. Paillou, G. Mitri, J. Lunine, S. Ostro, R. Lorenz, T.G. Farr, R.L. Kirk, J. Radebaugh, Cassini RADAR Science Team. Titan's North Polar Lakes as Observed by the Cassini RADAR: An Update. Fire and Ice Workshop, Boulder, August 2007, Abstract # 6042.

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- Lopes, R. M., S. A. Stern, J. R. Spencer, J. Moore, and the New Horizons Science Team . Io as seen by the New Horizons Spacecraft during the Jupiter Flyby. *Invited talk* at Asia Oceania Geosciences Society, 4th Annual Meeting, Bangkok, 31 July-4 August 2007.
- Lopes, R.M., S.D. Wall, R. Lorenz, R. Kirk, E. Stofan, C. Wood, L. Robshaw, K.L. Mitchell, J. Radebaugh, J. Lunine, P. Callahan, and the Cassini RADAR Team. Titan's Geology: Recent Results from the Cassini Titan Radar Mapper. *Invited talk* at Asia Oceania Geosciences Society, 4th Annual Meeting, Bangkok, 31 July-4 August 2007.
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- Lopes, R. (*Invited*): "Beyond Earth: How extra-terrestrial volcanism stretches our definition of a volcano". American Geophysical Union, Joint Assembly, Acapulco, Mexico, 22-25 May, 2007.
- Lopes, R., E.R. Stofan, C. Wood, L. Robshaw, K.L. Mitchell, J. Radebaugh, R. Lorenz, J. Lunine, S.D. Wall, R. Kirk, Cassini RADAR Team: "Titan's Geology as Viewed by the Cassini Titan Radar Mapper". American Geophysical Union, Joint Assembly, Acapulco, Mexico, 22-25 May, 2007.
- Lopes, R. (*Invited*): Cryovolcanism on Titan. Invited talk, American Association for the Advancement of Science, February 15-19, 2007, San Francisco.
- Mitchell, K.L., S. D. Wall, R. L. Kirk, P. Paillou, B. W. Stiles, S. Hensley, H. Zebker, J. I. Lunine, S. D. Wall, R. D. Lorenz, R. M. C. Lopes, E. R. Stofan and the Cassini RADAR Team. Multi-look studies of Titan's north polar lakes with Cassini Radar. The 4th International Limnogeology Congress (ILIC2007), Barcelona, Spain, 2007.
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- Kargel, J., Furfaro, R., Hays, C.C., Lopes, R.M.C., Lunine, J.I., Mitchell, K.L., Wall, S.D. and the Cassini RADAR Team. Titan's Goo-sphere: Glacial, Permafrost, evaporate and other familiar processes involving exotic materials. In Lunar Planet. Sci. XXXVIII, Lunar and Planetary Institute, Houston, TX, Abstract # 1992.

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Lopes, R.M.C.: "Communicating Geosciences to the Public". Invited talk, Pardee Keynote Symposium, Geological Society of America, Abstract # 93-4, 2006.

Lopes, R.M.C.: "Active Volcanism where you least expect it!". *Invited talk*, Pardee Keynote Symposium "When One Planet Isn't Enough: Celebrating 25 years of Solar System Exploration", Geological Society of America, Abstract # 32-6, 2006.

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