

Curriculum Vitae

Jason M. Soderblom

Research Scientist, MIT, Department of Earth, Atmospheric and Planetary Sciences

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Education:

Ph.D.: 2007, Cornell University, Astronomy and Planetary Science
Dissertation: *Properties of the Martian Soils Rocks and Atmosphere Dust Derived from Analysis of Hubble Space Telescope and Mars Exploration Rover Data.*
Advisor: James F. Bell III
M.S.: 2006, Cornell University, Astronomy and Planetary Science
Advisor: James F. Bell III
B.S., with Honors: 2000, University of Arizona, Engineering Physics
Honors Thesis: *Characteristics and Seasonal Dependence of Dust Devils in the Southern Arabian Region of Mars.*
Advisor: Peter H. Smith

Research Interests:

Visible and near infrared observations of the Moon, Mars and Outer Planet satellites, in particular, Titan
Physical and photometric properties of planetary surfaces and atmospheres
Planetary surface composition, operative geologic processes, and evolutionary history
Analysis of data from imaging spectrometers and multispectral imaging systems
Design, development, and implementation of planetary exploration missions
Advanced technology in the definition and design of spacecraft instrumentation
Definition and development of visible and near infrared imagers and spectrometers

Professional Experience:

2011–present: Research Scientist, Dept. of Earth, Atmospheric and Planetary Sciences, MIT
2007–2011: Research Associate, Lunar and Planetary Laboratory, Univ. of Arizona
2003–2007: Graduate Research Assistant, Department of Astronomy, Cornell Univ.
2002–2003: Teaching Assistant, Department of Astronomy, Cornell Univ.
2001–2002: New York-NASA Space Grant Fellow, Cornell Univ.
1999: Undergraduate Researcher, Champollion and Cassini Missions, JPL-NASA
1998–2000: Undergraduate researcher, Department of Physics, Univ. of Arizona

Professional Activities:

2012–present: Participating Scientist on the Cassini Mission and Cassini VIMS Team
2011–present: Affiliate of the Gravity Recovery and Interior Laboratory (GRAIL) Team

2010–present: Associate of the Cassini Radar Science Team
2009–present: VIMS Representative for the Cassini Cross Discipline Target Working Team
2007–present: Associate of the Cassini VIMS Team
2003–present: Science Collaborator, Mars Exploration Rovers, Athena Science Team
2003–2007: Payload Downlink Lead, Mars Exploration Rovers, Pancam Instrument Team
2002: Science Team Member, FIDO (Field Integrated Design and Operations) rover field test
1999: Summer Internship, JPL-NASA, Champollion and Cassini Missions
1997: Undergraduate Research Participant, Mars Pathfinder Mission

Academic Honors and Awards:

NASA Group Achievement Award, MER Second Extended Mission, 2005
NASA Group Achievement Award, MER Extended Mission, 2004
NASA Group Achievement Award, MER Primary Mission, 2004
New York-NASA Space Grant Fellowship, Cornell Univ., 2001–2002
Magna Cum Laude, B.S. Engineering Physics, Univ. of Arizona, 2000
Outstanding Graduating Senior, Engineering Physics, Univ. of Arizona, 2000
Sigma Pi Sigma, National Physics Honors Society, 1999
George Gregson-Science, Physics Departmental Scholarship, Univ. of Arizona, 1999
NASA Group Achievement Award, Mars Pathfinder mission, 1997
Dean's list, Univ. of Arizona, 1997–2000
Arizona Regent Scholarship, Univ. of Arizona, 1996–2000
Valedictorian, Coconino High School, Flagstaff, Arizona, 1996

Professional Services:

Member, NASA Lunar Exploration Analysis Group, 2011–present
Member, NASA Outer Planets Assessment Group, 2008–present
Member, NASA Mars Exploration Program Assessment Group, 2008–present
Science Definition Team Member, NASA Titan Saturn System Mission (TSSM) Study, 2008
Lead Contact for the High-Resolution Imager and Spectrometer, NASA TSSM Study, 2008
Panel member and external reviewer for numerous NASA Programs

Teaching Experience:

Teaching & Fieldtrip Assistant, Astro 577, "Planetary Surface Processes", Cornell Univ.,
Spring 2007
Teaching Assistant, Astro 102, "Our Solar System", Cornell Univ., Spring 2003
Teaching Assistant, Astro 310, "Planetary Image Processing", Cornell Univ., Fall 2002
Math Tutor, ranging from Basic Algebra to Advanced Calculus, 1996–2000
Lab Assistant, Math 137, "Calculus II", Northern Arizona Univ., Spring 1996

University Services:

Founding Member, Astronomy Grads Network university club, Cornell Univ., 2006
Organizer, Planetary Lunch seminar series, Cornell Univ., 2004–2005

Education and Public Outreach:

Many Professional talks, including department colloquia series, department lunchtime series, and classroom guest lectures.

Many Public lectures at science museums, private groups including armature astronomy clubs and photograph clubs, and elementary schools.

NASA Mars Exploration Rover press conferences and televised lectures

New York State 4-H, Focus for Teens science outreach program, 2004–2006

MarsQuest, Science Museum of Virginia, 2004

Professional Affiliations:

American Astronomical Society (AAS)

American Astronomical Society's Division for Planetary Sciences (DPS)

American Geophysical Union (AGU)

European Geosciences Union (EGU)

American Association for the Advancement of Science (AAAS)

The Planetary Society

Current and Pending Support:

Available upon request.

References:

Available upon request.

Publications:**Peer-Reviewed Publications and Book Chapters:**

29. Barnes, J. W., R. N. Clark, C. Sotin, M. Adamkovics, T. Appere, S. Rodriguez, J. M. Soderblom, R. H. Brown, B. J. Buratti, K. H. Baines, S. Le Mouelic, and P. D. Nicholson (2013), A Transmission Spectrum of Titan's North Polar Atmosphere from a Specular Reflection of the Sun, *Ap. J.*, in revision.
28. Soderblom, L. A., R. H. Brown, **J. M. Soderblom**, J. W. Barnes, C. Sotin, S. Le Mouelic, K. H. Baines, B. J. Buratti, R. N. Clark, and P. D. Nicholson (2013), Composition and Comparison of Titan's North and South Polar Lakes from Cassini Visual and Infrared Mapping Spectrometer (VIMS) Observations, *Icarus*, in revision.
27. Barnes, J. W., B. J. Buratti, E. P. Turtle, J. Bow, P. A. Dalba, J. Perry, R. H. Brown, S. Rodriguez, S. Le Mouelic, K. H. Baines, C. Sotin, R. D. Lorenz, M. J. Malaska, T. B. McCord, R. N. Clark, R. Jaumann, P. O. Hayne, P. D. Nicholson, **J. M. Soderblom**, and L. A. Soderblom (2012), Precipitation-Induced Surface Brightenings Seen on Titan by Cassini VIMS and ISS, *Planet. Sci.*, 2, doi:10.1016/10.1186/2191-2521-2-1.
26. Sotin, C., K. J. Lawrence, B. Reinhardt, J. W. Barnes, R. H. Brown, A. G. Hayes, S. Le Mouélic, B. J. Buratti, R. N. Clark, S. Rodriguez, L. A. Soderblom, R. Jaumann, **J. M. Soderblom**, K. Stephan, K. H. Baines, P. D. Nicholson (2012), Observations of Titan's northern lakes at 5 microns: Implications for the organic cycle and geology, *Icarus*, 221, doi:10.1016/j.icarus.2012.08.017.
25. **Soderblom, J. M.**, J. W. Barnes, L. A. Soderblom, R. H. Brown, C. A. Griffith, P. D. Nicholson, K. Stephan, R. Jaumann, C. Sotin, K. H. Baines, B. J. Buratti, and R. N.

- Clark (2012), Modeling specular reflections from hydrocarbon lakes on Titan, *Icarus*, 220, doi:10.1016/j.icarus.2012.05.030.
24. Langhans, M. H., R. Jaumann, K. Stephan, R. H. Brown, B. J. Buratti, R. N. Clark, K. H. Baines, P. D. Nicholson, R. D. Lorenz, L. A. Soderblom, **J. M. Soderblom**, C. Sotin, J. W. Barnes, and R. Nelson (2012) Titan's fluvial valleys: Morphology, distribution, and spectral properties, *Planet. & Space Sci.*, 60, doi:10.1016/j.pss.2011.01.020.
 23. Buratti, B. J., C. Sotin, K. Lawrence, R. H. Brown, S. Le Mouélic, **J. M. Soderblom**, J. Barnes, R. N. Clark, K. H. Baines, and P. D. Nicholson (2012), A newly discovered impact crater in Titan's Senkyo: *Cassini* VIMS observations and comparison with other impact features, *Planet. & Space Sci.*, 60, doi:10.1016/j.pss.2011.05.004.
 22. Barnes, J. W., J. Bow, J. Schwartz, R. H. Brown, **J. M. Soderblom**, A. G. Hayes, G. Vixie, S. Le Mouélic, S. Rodriguez, C. Sotin, R. Jaumann, K. Stephan, L. A. Soderblom, R. N. Clark, B. J. Buratti, K. H. Baines, and P. D. Nicholson (2011), Organic sedimentary deposits in Titan's dry lakebeds: Probable evaporite, *Icarus*, 216, doi:10.1016/j.icarus.2011.08.022.
 21. Barnes, J. W., **J. M. Soderblom**, R. H. Brown, L. A. Soderblom, K. Stefan, R. Jaumann, S. Le Mouélic, S. Rodriguez, C. Sotin, B. J. Buratti, K. H. Baines, R. N. Clark, and P. D. Nicholson (2011), Wave Constraints for Titan's Jingpo Lacus and Kraken Mare from VIMS Specular Reflection Lightcurves, *Icarus*, 211, doi:10.1016/j.icarus.2010.09.022.
 20. **Soderblom, J. M.**, R. H. Brown, L. A. Soderblom, J. W. Barnes, R. Jaumann, S. Le Mouélic, C. Sotin, K. Stephan, K. H. Baines, B. J. Buratti, R. N. Clark, and P. D. Nicholson (2010), Geology of the Selk Crater Region on Titan from Cassini VIMS Observations, *Icarus*, 208, doi:10.1016/j.icarus.2010.03.001.
 19. Tosi, F., R. Orosei, R. Seu, A. Coradini, J. I. Lunine, G. Filacchione, A. I. Gavrishin, F. Capaccioni, P. Cerroni, A. Adriani, M. L. Moriconi, A. Negrão, E. Flamini, R. H. Brown, L. C. Wye, M. Janssen, R. D. West, J. W. Barnes, S. D. Wall, R. N. Clark, D. P. Cruikshank, T. B. McCord, P. D. Nicholson, **J. M. Soderblom**, and the Cassini VIMS and RADAR Teams (2010), Correlations between VIMS and RADAR data over the surface of Titan: Implications for Titan's surface properties, *Icarus*, 208, doi:10.1016/j.icarus.2010.02.003.
 18. Stephan, K., R. Jaumann, R. H. Brown, **J. M. Soderblom**, L. A. Soderblom, J. W. Barnes, C. Sotin, C. A. Griffith, R. L. Kirk, K. H. Baines, B. J. Buratti, R. N. Clark, R. L. Kirk, D. M. Lytle, R. W. Nelson, and P. D. Nicholson (2010), Specular reflection on Titan: Liquids in Kraken Mare, *Geophys. Res. Lett.*, 37, L07104, doi:10.1029/2009GL042312.
 17. Barnes, J. W., **J. M. Soderblom**, R. H. Brown, B. J. Buratti, C. Sotin, K. H. Baines, R. N. Clark, R. Jaumann, T. B. McCord, R. Nelson, S. Le Mouélic, S. Rodriguez, C. Griffith, P. Penteado, F. Tosi, K. M. Pitman, L. Soderblom, K. Stephan, P. Hayne, G. Vixie, J.-P. Bibring, G. Bellucci, F. Capaccioni, P. Cerroni, A. Coradini, D. P. Cruikshank, P. Drossart, V. Formisano, Y. Langevin, D. L. Matson, P. D. Nicholson, and B. Sicardy (2009), VIMS Spectral Mapping Observations of Titan During the Cassini Prime Mission, *Planet. & Space Sci.*, 57, doi:10.1016/j.pss.2009.04.013.
 16. Soderblom, L. A., R. H. Brown, **J. M. Soderblom**, J. W. Barnes, R. L. Kirk, C. Sotin, R. Jaumann, D. J. Mackinnon, D. W. Mackowski, K. H. Baines, B. J. Buratti, R. N. Clark, P. D. Nicholson (2009), The geology of Hotei Regio, Titan: Correlation of Cassini VIMS and RADAR, *Icarus*, 204, doi:10.1016/j.icarus.2009.07.033.

15. Le Corre, L., S. Le Mouélic, C. Sotin, J.-P. Combe, S. Rodriguez, J. W. Barnes, R. H. Brown, B. J. Buratti, R. Jaumann, **J. Soderblom**, L. A. Soderblom, R. Clark, K. H. Baines, and P. D. Nicholson (2009), Analysis of a cryolava flow-like feature on Titan, *Planet. & Space Sci.*, 57, doi:10.1016/j.pss.2009.03.005.
14. Barnes, J. W., R. H. Brown, **J. M. Soderblom**, L. A. Soderblom, R. Jaumann, B. Jackson, S. Le Mouélic, C. Sotin, B. J. Buratti, K. M. Pitman, K. H. Baines, R. N. Clark, P. D. Nicholson, E. P. Turtle, and J. Perry (2009), Shoreline features of Titan's Ontario Lacus from Cassini/VIMS observations, *Icarus*, 201, doi:10.1016/j.icarus.2008.12.028.
13. **Soderblom, J. M.**, J. F. Bell III, J. R. Johnson, J. Joseph, and M. J. Wolff (2008), Mars Exploration Rover Navigation Camera in-flight calibration, *J. Geophys. Res.*, 113, E06S19, doi:10.1029/2007JE003003.
12. Jaumann, R., R. H. Brown, K. Stephan, J. W. Barnes, L. A. Soderblom, C. Sotin, S. Le Mouélic, R. N. Clark, **J. Soderblom**, B. J. Buratti, R. Wagner, T. B. McCord, S. Rodriguez, K. H. Baines, D. P. Cruikshank, P. D. Nicholson, C. A. Griffith, M. Langhans and R. D. Lorenz (2008), Fluvial erosion and post-erosional processes on Titan, *Icarus*, 197, doi:10.1016/j.icarus.2008.06.002.
11. Brown, R. H., L. A. Soderblom, **J. M. Soderblom**, R. N. Clark, R. Jaumann, J. W. Barnes, C. Sotin, B. Buratti, K. H. Baines, and P. D. Nicholson (2008), The identification of liquid ethane in Titan's Ontario Lacus, *Nature*, 454, doi:10.1038/nature07100.
10. Johnson, J. R., J. F. Bell III, P. Geissler, W. M. Grundy, E. A. Guinness, P. C. Pinet, and **J. Soderblom** (2008), Physical properties of the Martian surface from spectrophotometric observations, in *The Martian Surface: Composition, Mineralogy, and Physical Properties*, edited by J. Bell, pp. 428–450, Cambridge University Press, Cambridge.
9. Farrand, W. H., J.F. Bell, III, J. R. Johnson, B. L. Jolliff, H. H. Knoll, S. M. McLennan, S. W. Squyres, C. W. Calvin, J. P. Grotzinger, R. V. Morris, **J. Soderblom**, S. D. Thompson, W. A. Watters, and A. S. Yen (2007), Visible and near-infrared multispectral analysis of rocks at Meridiani Planum, Mars, by the Mars Exploration Rover Opportunity, *J. Geophys. Res.*, 112, E06S02, doi:10.1029/2006JE002773.
8. **Soderblom, J. M.**, J. F. Bell, M. Y. H. Hubbard, and M. J. Wolff (2006), Martian phase function: Modeling the visible to near-infrared surface photometric function using HST-WFPC2 data, *Icarus*, 184, doi:10.1016/j.icarus.2006.05.006.
7. Johnson, J. R., W. M. Grundy, M. T. Lemmon, J. F. Bell, M. J. Johnson, R. Deen, R. E. Arvidson, W. H. Farrand, E. Guinness, A. G. Hayes, K. E. Herkenhoff, F. Seelos, **J. Soderblom**, and S. Squyres (2006), Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 2. Opportunity, *J. Geophys. Res.*, 111, E12S16, doi:10.1029/2006JE002762.
6. Grotzinger, J., L. Bell, III, K. Herkenhoff, J. Johnson, A. Knoll, E. McCartney, S. McLennan, J. Metz, J. Moore, S. Squyres, R. Sullivan, O. Ahronson, R. Arvidson, B. Jolliff, M. Golombek, K. Lewis, T. Parker, and **J. Soderblom** (2006), Sedimentary textures formed by aqueous processes, Erebus crater, Meridiani Planum, Mars, *Geo.*, 34, doi:10.1130/G22985A.1.
5. Johnson, J. R., W. M. Grundy, M. T. Lemmon, J. F. Bell, M. J. Johnson, R. G. Deen, R. E. Arvidson, W. H. Farrand, E. A. Guinness, A. G. Hayes, K. E. Herkenhoff, F. Seelos, **J.**

- Soderblom**, and S. Squyres (2006), Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 1. Spirit, *J. Geophys. Res.*, *111*, E02S14, doi:10.1029/2005JE002494.
4. Farrand, W. H., J. F. Bell, J. R. Johnson, S. W. Squyres, **J. Soderblom**, and D. W. Ming (2006), Spectral variability among rocks in visible and near-infrared multispectral Pancam data collected at Gusev crater: Examinations using spectral mixture analysis and related techniques, *J. Geophys. Res.*, *111*, E02S15, doi:10.1029/2005JE002495.
 3. Soderblom, L. A., R. C. Anderson, R. E. Arvidson, J. F. Bell, N. A. Cabrol, W. Calvin, P. R. Christensen, B. C. Clark, T. Economou, B. L. Ehlmann, W. H. Farrand, D. Fike, R. Gellert, T. D. Glotch, M. P. Golombek, R. Greeley, J. P. Grotzinger, K. E. Herkenhoff, D. J. Jerolmack, J. R. Johnson, B. Jolliff, G. Klingelhöfer, A. H. Knoll, Z. A. Learner, R. Li, M. C. Malin, S. M. McLennan, H. Y. McSween, D. W. Ming, R. V. Morris, J. W. Rice, L. Richter, R. Rieder, D. Rodionov, C. Schröder, F. P. Seelos, **J. M. Soderblom**, S. W. Squyres, R. Sullivan, W. A. Watters, C. M. Weitz, M. B. Wyatt, A. Yen, and J. Zipfel (2004), Soils of Eagle Crater and Meridiani Planum at the Opportunity Rover Landing Site, *Science* *306*, 1723-1726.
 2. Bell, J. F., S. W. Squyres, R. E. Arvidson, H. M. Arneson, D. Bass, W. Calvin, W. H. Farrand, W. Goetz, M. Golombek, R. Greeley, J. Grotzinger, E. Guinness, A. G. Hayes, M. Y. H. Hubbard, K. E. Herkenhoff, M. J. Johnson, J. R. Johnson, J. Joseph, K. M. Kinch, M. T. Lemmon, R. Li, M. B. Madsen, J. N. Maki, M. Malin, E. McCartney, S. McLennan, H. Y. McSween, D. W. Ming, R. V. Morris, E. Z. N. Dobreá, T. J. Parker, J. Proton, J. W. Rice, F. Seelos, **J. M. Soderblom**, L. A. Soderblom, J. N. Sohl-Dickstein, R. J. Sullivan, C. M. Weitz, and M. J. Wolff (2004), Pancam Multispectral Imaging Results from the Opportunity Rover at Meridiani Planum, *Science* *306*, 1703-1709.
 1. Bell, J. F., S. W. Squyres, R. E. Arvidson, H. M. Arneson, D. Bass, D. Blaney, N. Cabrol, W. Calvin, J. Farmer, W. H. Farrand, W. Goetz, M. Golombek, J. A. Grant, R. Greeley, E. Guinness, A. G. Hayes, M. Y. H. Hubbard, K. E. Herkenhoff, M. J. Johnson, J. R. Johnson, J. Joseph, K. M. Kinch, M. T. Lemmon, R. Li, M. B. Madsen, J. N. Maki, M. Malin, E. McCartney, S. McLennan, H. Y. McSween, D. W. Ming, J. E. Moersch, R. V. Morris, E. Z. Noe Dobreá, T. J. Parker, J. Proton, J. W. Rice, F. Seelos, **J. Soderblom**, L. A. Soderblom, J. N. Sohl-Dickstein, R. J. Sullivan, M. J. Wolff, and A. Wang (2004), Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater, *Science* *305*, 800-807.

Theses:

2. **Soderblom, J. M.** (2007), Properties of Martian soils, rocks, and atmospheric dust derived from analysis of Hubble Space Telescope and Mars Exploration Rover data, Ph.D. dissertation, Cornell University, Ithaca, New York.
1. **Soderblom, J. M.** (2000), Characterization and Seasonal-dependence of Dust Devils in the Southern Arabian Region of Mars, Honors Thesis, University of Arizona, Tucson, AZ.

First-Authored Publications in Preparation for Peer Review:

4. **Soderblom, J. M.**, M. T. Zuber, K. Miljkovic, and H. J. Melosh, Complex Lunar Craters Mapped by High-Resolution GRAIL Gravity Data, to be submitted to *Science*.

3. **Soderblom, J. M.**, K. Soedyatmiko, L. A. Soderblom, K. Becker, T. Becker J. W. Barnes, R. H. Brown, and C. Sotin, Mapping Liquids on Titan - Specular Reflections from Titan's Lakes, to be submitted to *Icarus*.
2. **Soderblom, J. M.**, M. J. Wolff, and J. F. Bell, Temporal Variations in the Size Distribution of Martian Atmospheric Dust from Mars Exploration Rover Navcam Observations, to be submitted to *J. Geophys. Res.*
1. **Soderblom, J. M.**, C. Sotin, J. W. Barnes, R. H. Brown, R. N. Clark, C. Griffith, and L. A. Soderblom, Titan's Polar Atmosphere at 5 microns, to be submitted to *Icarus*.

Abstracts and Conference Presentations:

45. Andrews-Hanna, J. C., A. M. Freed, J. W. Head, H. J. Melosh, G. A. Neumann, **J. M. Soderblom**, M. A. Wieczorek, M. T. Zuber, and the GRAIL Science Team (2013), The Compensation State and Ring Structures of Lunar Basins as Revealed by GRAIL Gravity, *Lunar and Planet. Sci. Conf. 43*, Abstract # 2823.
44. Smith, D. E., M. T. Zuber, G. A. Neumann, E. Mazarico, J. W. Head, A. J. Evans, M. A. Wieczorek, S. J. Goossens, J. C. Andrews-Hanna, **J. M. Soderblom**, and W. S. Kiefer (2013), GRAIL Gravity Field of the Lunar South Polar Region, *Lunar and Planet. Sci. Conf. 43*, Abstract # 1749.
43. Wieczorek, M. A., F. Nimmo, W. S. Kiefer, G. A. Neumann, K. Miljkovic, H. J. Melosh, R. J. Phillips, S. C. Solomon, J. W. Head, S. W. Asmar, A. S. Konopliv, F. G. Lemoine, M. M. Watkins, J. G. Williams, **J. M. Soderblom**, D. E. Smith, and M. T. Zuber, (2013), High-Resolution Estimates of Lunar Crustal Density and Porosity from the GRAIL Extended Mission, *Lunar and Planet. Sci. Conf. 43*, Abstract # 1914.
42. **Soderblom, J. M.**, M. T. Zuber, K. Miljkovic, H. J. Melosh, and the GRAIL Science Team (2012), Complex Lunar Craters Mapped by High-Resolution GRAIL Gravity Data, *EOS, Trans. AGU*, Abstract # G33B-0961.
41. **Soderblom, J. M.**, C. Sotin, J. W. Barnes, R. H. Brown, K. J. Lawrence, S. Le Mouelic, L. A. Soderblom, K. H. Baines, B. J. Buratti, R. N. Clark, P. D. Nicholson, and the VIMS team (2012), Specular Reflections From Titan: Implications For Titan's Lakes And Atmosphere, *Bull. Amer. Astron. Soc.*, *44*, 400.01.
40. Barnes, J. W., B. J. Buratti, E. P Turtle, J. Bow, P. A. Dalba, J. Perry, S. Rodriguez, S. Le Mouelic, K. H. Baines, C. Sotin, R. D. Lorenz, M. J. Malaska, T. B. McCord, R. N. Clark, R. Jaumann, P. Hayne, P. D. Nicholson, **J. M. Soderblom**, and L. A. Soderblom (2012), Dark and Bright Albedo Changes in the Wake of a Titan Rainstorm, *Bull. Amer. Astron. Soc.*, *44*, 400.07.
39. Brown, R. H., L. A. Soderblom, C. Sotin, J. W. Barnes, A. G. Hayes, K. J. Lawrence, S. Le Mouelic, S. Rodriguez, **J. M. Soderblom**, K. H. Baines, B. J. Buratti, R. N. Clark, R. Jaumann, P. D. Nicholson, and K. Stephan (2012), Titan's lakes and Mare observed by the Visual and Infrared Mapping Spectrometer, *Geophys. Res. Abs.*, *14*, Abstract # 13004.
38. Barnes, J. W., B. J. Buratti, E. P Turtle, J. Bow, P. A. Dalba, J. Perry, S. Rodriguez, S. Le Mouelic, K. H. Baines, C. Sotin, R. D. Lorenz, M. J. Malaska, T. B. McCord, R. H. Brown, R. N. Clark, R. Jaumann, P. Hayne, P. D. Nicholson, **J. M. Soderblom**, and L. A. Soderblom (2012), *Cassini/VIMS Spectra and Time-Evolution of Precipitation-Associated Surface Brightenings on Titan*, *Lunar and Planet. Sci. Conf. 43*, Abstract # 2762.

37. Langhans, W., R. Jaumann, K. Stephan, R. H. Brown, B. J. Buratti, R. N. Clark, P. D. Nicholson, R. D. Lorenz, L. A. Soderblom, **J. M. Soderblom**, C. Sotin, J. W. Barnes, and R. Nelson (2011), Fluvial Erosion on Titan, *Bull. Amer. Astron. Soc.*, 43, 508.
36. Lawrence, K. J., C. Sotin, B. Reinhardt, J. W. Barnes, R. H. Brown, A. G. Hayes, B. J. Buratti, S. Rodriguez, L. A. Soderblom, R. Jaumann, **J. M. Soderblom**, K. Stephan, and K. H. Baines (2011), Titan's Northern Lakes at 5 microns, *Bull. Amer. Astron. Soc.*, 43, 480.
35. Sotin, C., K. Altwegg, R. H. Brown, K. Hand, J. I. Lunine, **J. M. Soderblom**, J. Spencer, P. Tortora, and the JET Team (2011), JET: Journey to Enceladus and Titan, *Lunar and Planet. Sci. Conf. 42*, Abstract # 1608.
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