

LINDA J. SPILKER

CASSINI PROJECT SCIENTIST

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Education

Ph.D. (summa cum laude), Geophysics and Space Physics UCLA (1992)
M.S. Physics, California State University, Los Angeles (1983)
B.A. Physics, California State University, Fullerton (1977)

Research Interests

- Thermal infrared studies of Saturn's rings to address questions of ring evolution
- Numerical modeling of gravitational waves and wakes in Saturn's rings to estimate local surface mass density and ring mass
- Acquisition and interpretation of Cassini Composite Infrared Spectrometer (CIRS) data to determine ring dynamics from thermal behavior as a function of solar and ring geometry

Professional Experience

Jet Propulsion Laboratory (1977 – present)

Project Work

Cassini Project Scientist (2010 -)
Cassini Deputy Project Scientist (1997 – 2010)
Cassini Mission Scientist (1990 – 1997)
Cassini CIRS Investigation Scientist (1990 – 1992)
Cassini Assistant Study Scientist (1988 – 1990)
Hermes Discovery Mission Proposal Deputy Principal Investigator (1993 – 1998)
Voyager IRIS Experiment Representative (1979 – 1990)
Voyager IRIS Assistant Experiment Representative (1977 – 1979)

Science Work

Cassini Composite Infrared Spectrometer (CIRS) Co-Investigator (1990 – present)
Visiting Scientist at University of Paris 7 (2001, 2010)
Principal Investigator, Cassini Data Analysis Program (CDAP) (2009 -)
Principal Investigator for Ring Structure and Dynamics, OPR (2004 – 2006)
Principal Investigator for Planetary Ring Studies in PG&G (1993 – 1997, 1999 – 2002)
Co-Investigator on Coherent backscatter opposition effect in PG&G (1990 – 1997)
Co-Investigator on compositional mapping of Io using mutual satellite occultations (1990 – 1991)
Voyager Photopolarimeter (PPS) Science Associate (1984 – 1990)
Voyager Infrared Radiometer & Spectrometer (IRIS) Science Associate (1988 – 1990)
Research Assistant, Geology Department, California Institute of Technology (1975 – 1977)

Mentor/Advisor Experience

NASA Postdoctoral Program (NPP) Advisor: Estelle Deau, 2010 -
Research Advisor for Dr. Ryuji Morishima, 2009 –
NPP Advisor for Dr. Jose Alberto Flandes, 2008 – 2010 (now professor at University of Mexico)
NPP Advisor for Dr. Cedric Leyrat, 2006 – 2007
NRC/NPP Advisor to Dr. Nicolas Altobelli, 2005 – 2007

NRC/NPP Advisor to Dr. Shawn Brooks, 2004-2006

Undergraduate Student Research Program (USRP) advisor for Coleman Dobson, summer 2009, 2010

Space Grant/SURF Advisor to Ben Pollard, summers of 2003, 2005, 2006

Graduate student advisor: PhD student Carrie Nugent (UCLA), 2007 - 2009

Select Awards

NASA Group Achievement Awards for Cassini CIRS Team, Cassini Outreach, Cassini Ring Working Group, Cassini Saturn Working Group, Cassini Magnetospheres Working Group, Cassini Project Management (2009)

Distinguished Alumna Award from California State University, Fullerton (2005)

NASA Group Achievement Award for Cassini Jupiter Flyby (2000)

Hall of Fame Award, Placentia-Yorba Linda Unified School District (1999)

Two NASA Group Achievement Awards, Cassini CIRS and Cassini Public Outreach (1998)

ESA Award for contribution to Huygens Probe (1997)

Distinguished Alumna Award for Natural & Social Sciences from California State University at Los Angeles (1996)

NASA Exceptional Service Medal, Voyager IRIS Neptune Encounter (1990)

NASA Scientific Achievement Award (1982)

Seven (7) NASA Group Achievement Awards for Voyager Mission (1982 – 1989)

California State University Fullerton Dept. of Physics Faculty Prize for Scholarship (1977)

Professional Organizations

America Astronomical Society, Division for Planetary Science

America Astronomical Society, Division on Dynamical Astronomy

American Geophysical Union

European Geophysical Union

Professional Activities

Articles written for Astronomy magazine, Sky and Telescope, 2010

Manuscript Reviewer, *Icarus*, *JGR*, *ApJ*, *Nature*, *PSS*, and other journals (1990 – present)

Convener for Outer Planets: Satellites and Rings Sessions for European Geophysical Union Meetings (2002 – 2011)

Convener for Fall AGU Ring Session (2007 – present)

Outer Planets Assessment Group (OPAG) Steering Committee (2008 – present)

Guest Editor, Planetary and Space Science Special Issues: Outer Planet Satellites and Rings (2002 – present)

Scientific Organizing Committee, Division of Planetary Science, Pasadena, CA (2006)

Guest Editor, COSPAR (2006, 2007)

NASA Vision Mission Science Team, Neptune Orbiter with Probes (2003 – 2005)

Committee member for Cecile Ferrari's "Habilitation à diriger des Recherches". in Saclay, in France (2002)

JPL Advisory Council for Women (2001 – 2004)

NASA Decadal Survey: Planetary Rings Panel (2001)

NASA Planetary Geology and Geophysics Review Panel (2000)

Editor, Passage to a Ringed World. NASA SP-533, (1977)

Planetary Road Map Formulation Team (1996)

Editor, Cassini/Huygens: A Mission to the Saturnian System. SPIE Vol. 2803. (1996)

Convener and SPIE Conference Chair, Cassini/Huygens: A Mission to the Saturn System (1995 – 1996)

Cassini Rings Working Group (1991 – present)

Planetary Science Data Steering Group (1991 – 1994)

Advisory Council for Planetary Data System Ring Node (1990 – present)

American Association of University Women (1985 – present)

JPL Speaker's Bureau (1980 – present)

Publications

Morishima, R., L. Spilker, H. Salo, K. Ohtsuki, N. Altobelli, S. Piorz. A multilayer model for thermal infrared emission of Saturn's rings II: Albedo, spins, and vertical mixing of rings. 2010, *Icarus*, Volume 210, Issue 1, 330-345.

Flandes, A., L. Spilker, R. Morishima, S. Piorz, C. Leyrat, N. Altobelli, S. Brooks, S. Edgington, Brightness properties of Saturn's rings with decreasing solar elevation, 2010, *Planetary and Space Science*, Volume 58, Issue 13, 1758 – 1765.

Cuzzi, J.N., J. A. Burns, S. Charnoz, R. N. Clark, J. E. Colwell, L. Dones, L. W. Esposito, G. Filacchione, R. G. French, M. M. Hedman, S. Kempf, E. A. Marouf, C. D. Murray, P. D. Nicholson, C. C. Porco, J. Schmidt, M. R. Showalter, L. J. Spilker, J. N. Spitale, R. Srama, M. Sremčević, M. S. Tiscareno, J. Weiss. An Evolving View of Saturn's Dynamic Rings. 2010. *Science*, Volume 327, 1470 -

Cuzzi, J, R. Clark, G. Filacchione, R. French, R. Johnson, E. Marouf, L. Spilker. Ring Particle Composition and Size Distribution, 2009, in M. Dougherty, L. Esposito and T. Krimigis, eds., *Saturn from Cassini-Huygens*, Dordrecht, Springer, ISBN 978-1-4020-9216-9, 459 – 509.

Altobelli, N., L. Spilker, C. Leyrat, S. Piorz, S. Edgington, A. Flandes, Thermal phase curves observed in Saturn's main rings by Cassini CIRS. Vol. 36, L10105, 2009.

Coustenis, A. et al., TandEM: Titan and Enceladus mission, *Exp. Astron*, 2009, 23:893–946.

Ferrari, C., Brooks S., Edgington S., Leyrat C., Piorz S. and Spilker L., Structure of self-gravity wakes in Saturn's A ring as measured by Cassini CIRS, 2009, *Icarus*, Volume 199, Issue 1, 145-153.

Spilker, L. Saturn Revolution. 2008. *Astronomy* Vol. 36, No. 10, 34 – 39.

Leyrat C., Ferrari C., Charnoz S., Decriem J., Spilker L. J., Piorz S. H., Spinning particles in Saturn's C ring: Pre-Cassini results, 2008, *Icarus*, Volume 196, Issue 2, p. 625-641.

Altobelli, N., L. J. Spilker, C. Leyrat, S. Piorz, 2008. Thermal observations of Saturn's main rings by Cassini CIRS: Phase, emission and solar elevation dependence, *Planetary and Space Science*, 56, 134–146.

Leyrat, C., L. J. Spilker, N. Altobelli, S. Piorz, C. Ferrari, 2008. Infrared observations of Saturn's rings by Cassini CIRS : Phase angle and local time dependence, *Planetary and Space Science*, 56 (2008) 117–133.

Coustenis, A., S. Atreya, C. Ferrari, L. Spilker. 2008. Surfaces and atmospheres of the outer planets, their satellites and ring systems. *Planetary and Space Science*, 56, 1-2.

Altobelli, N., L. Spilker, S. Piorz, S. Brooks, S. Edgington, B. Wallis, M. Flasar, 2007. C ring fine structures revealed in the thermal infrared, *Icarus*, 191, 691–701.

Spilker, L. J., S. H. Piorz, B. D. Wallis, J. C. Pearl, J. N. Cuzzi, S. M. Brooks, N. Altobelli, S. G. Edgington, M. Showalter, F. M. Flasar, C. Ferrari, C. Leyrat, 2006. Cassini Thermal Observations of Saturn's main rings: Implications for particle rotation and vertical mixing, *Planetary and Space Science*, 54, Issue 12, 1167-1176.

Spilker, L.J. 2006. Close Encounters with Saturn. 2006 Science Year, World Book, Inc., 12-27. Lead Article.

Coustenis, Athena; Atreya, Sushil; Ferrari, Cécile; Lebreton, Jean-Pierre; Matson, Dennis; Spilker, Linda; Strobel, Darrell. 2006. Surfaces and atmospheres of the outer planets, their satellites and ring systems. *Planetary and Space Science*, 54, 1115-1116.

Miner, E.D., Matson, D. L., and Spilker, L.J. 2006. Cassini at Saturn: The First Results. Chapter 9 in *Solar System Update, Praxis Publishing, Ltd.*, 217 – 249.

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. Lopes, 2006. Cassini Encounters Enceladus: Background and the Discovery of a South Polar Hot Spot. *Science*, Vol. 311, Issue 5766, 1401-1405.

Spilker, L., S. Piorz, B. Wallis, S. Edgington, S. Brooks, J. Pearl, J., F. Flasar, 2005. Cassini CIRS Observations of a Roll-off in Saturn Ring Spectra at Submillimeter Wavelengths. *Earth, Moon and Planets*, Volume 96, Issue 3-4, 149-163.

Coustenis, A., C. Ferrari, S. K. Atreya, L. J. Spilker, 2005. Special issue on the “Surfaces and atmospheres of the outer planets, their satellites and ring systems”. *Planetary and Space Science*, Vol. 53, Issue 5, 459-460.

Flasar, F. M., L. J. Spilker, ..., 2005. Titan's Atmospheric Temperatures, Winds, and Composition. *Science*, Vol. 308, Issue 5724, 975-978.

Flasar, F. M. ... L. J. Spilker, ... 2005. Temperatures, Winds, and Composition in the Saturnian System. *Science*, Vol. 307, Issue 5713, 1247-1251.

Spilker, L.J., S. Piorz, A.L. Lane, R.M. Nelson B. Pollard, and C. T. Russell. 2004. Saturn A ring surface mass densities from spiral density wave dispersion behavior. *Icarus* **171**, 372 - 390.

Hansen, C. J., S. J. Bolton, D. L. Matson, L. J. Spilker, J.-P. Lebreton, 2004. The Cassini-Huygens flyby of Jupiter. *Icarus*, Vol. 172, Issue 1, 1-8.

Bolton, S. J., C. J. Hansen, D. L. Matson, L. J. Spilker, J.-P. Lebreton, 2004. Cassini/Huygens flyby of the Jovian system. *Journal of Geophysical Research*, Vol. 109, Issue A9.

Coustenis, A., L. J. Spilker, S. Atreya, C. Ferrari, 2004. Surfaces and atmospheres of the outer planets, their satellites and ring systems. *Planetary and Space Science*, Volume 51, Issue 14-15, 1-2.

Flasar, F.M. ..., L.J. Spilker... and Cassini CIRS team. 2004. An intense stratospheric jet on Jupiter. *Nature*, Vol. 427, 132-135.

Kunde, V. G. ..., L.J. Spilker... and Cassini CIRS team. 2004. Jupiter's atmospheric composition from the Cassini thermal infrared spectroscopy experiment.. *Science*, Vol. 305, Issue 5690, 1582-1587.

Flasar, F.M., ... L.J. Spilker, and Cassini CIRS team. 2004. Exploring the Saturn System in the thermal infrared: The Composite Infrared Spectrometer. *Space Science Rev.*, Vol. 114, Nos. 1-4, Kluwer Academic Publishers, 169-297.

Lebreton, J.-P.; Sollazzo, C.; Blancquaert, T.; Witasse, O.; Huygens Mission Team; Maize, E.; Matson, D.; Mitchell, R.; Spilker, L.; Flamini, E.; Talevi, M. 2004. High ambitions for an outstanding planetary mission: Cassini-Huygens. *ESA Bulletin*, No. 120, 10 – 21.

Spilker, L.J., C. Ferrari, J. Cuzzi, M. Showalter, J. Pearl and B. Wallis. 2003. Saturn's Rings in the Thermal Infrared. *Planetary and Space Science* (Special Issue: Surfaces and Atmospheres of the Outer Planets, their Satellites and Ring Systems), Vol. 51, Issues 14-15, 929-935.

Matson, D.L., L.J. Spilker and J-P. Lebreton. 2003. The Cassini/Huygens Mission to the Saturnian System. The Cassini-Huygens Mission, Vol. 1, *Space Sci. Rev.*, Vol. 104, Nos. 1-4, Kluwer Academic Publishers, 1-58.

Cuzzi, J. N., J. E. Colwell, L. W. Esposito, C. C. Porco, C. D. Murray, P. D. Nicholson, L. Spilker, E. A. Marouf, R. C. French, N. Rappaport, and D. Muhleman 2003. Saturn's Rings: Pre-Cassini Status and Mission Goals. The Cassini-Huygens Mission, Vol. 1, *Space Sci. Rev.*, Vol. 104, Nos. 1-4, Kluwer Academic Publishers, 191-208.

Nelson, R.M., B.W. Hapke, W.D. Smythe, and L.J. Horn. 1998. Phase curves of selected particulate materials: The contribution of coherent backscattering to the opposition surge. *Icarus* **131**, 223-230.

Spilker, L.J., Ed., 1997. Passage to a Ringed World, NASA SP-533.

Spilker, L.J., Ed. 1997. Cassini/Huygens: A Mission to the Saturnian System. SPIE Vol. 2803.

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Horn, L.J., M.R. Showalter, and C.T. Russell. 1996. Detection and behavior of Pan wakes. *Icarus*, 124, 663-676.

Horn, L.J., R.M. Nelson, W.D. Smythe, and B.W. Hapke. 1996. Coherent backscatter opposition effect from Saturn ring particles and their regoliths. *Physics, Chemistry and Dynamics of Interplanetary Dust*, ASP Conference Series, Volume 104, Bo A.S. Gustafson and Martha S. Hanner, eds., pp. 443-446.

Nelson, R.M., B.D. Wallis, E.S. Barker, L.J. Horn, W.D. Smythe, A.L. Lane, B.W. Hapke. 1996. Compositional mapping of Jupiter's satellite Io utilizing high speed multifilter photometry during mutual satellite occultations, 1990-1991. *Icarus*, 123, 568-577.

Kunde, V.G.,... L.J. Horn, and Cassini CIRS team. 1996. Cassini Infrared Fourier Spectroscopic Investigation. SPIE Vol. 2803.

Horn, L.J., Ed. 1996 Cassini/Huygens: A Mission to the Saturnian System. SPIE Vol. 2803.

Nelson, R.M., A.L. Lane, M.E. Morrill, L.J. Horn, and B.J. Buratti. 1992. The brightness of Jupiter's satellite Io following emergence from eclipse: Selected observations, 1981-1989. *Icarus*, 101, 223-233.

Hui, J., L.J. Horn, and A.L. Lane. 1991. Particle sizes of the Uranian delta ring's inner diffuse companion through comparison of RSS and PPS Voyager occultation data. *Icarus*, 93, 347-353.

Colwell, J.E., L.J. Horn, A.L. Lane, L.W. Esposito, P.A. Yanamandra-Fisher, S.H. Pilorz, K.E. Simmons, M.D. Morrison, C.W. Hord, R.M. Nelson, B.D. Wallis, R.A. West, and B.J. Buratti. 1990. Voyager photopolarimeter observations of Uranian ring occultations. *Icarus*, 83, 102-125.

Horn, L.J., J. Hui, A.L. Lane, and J.E. Colwell. 1990. Observations of Neptunian rings by the Voyager photopolarimeter. *GRL*, 17(10), 1745-1748.

Nelson, R.M., W.D. Smythe, B.D. Wallis, L.J. Horn, A.L. Lane, and M.J. Mayo. 1990. Temperature and thermal emissivity of the surface of Neptune's satellite Triton. *Science*, 250, 429-431.

Nelson, R.M., B.J. Buratti, B.D. Wallis, W.D. Smythe, L.J. Horn, A.L. Lane, and M.J. Mayo. 1990. Spectral geometric albedo and bolometric bond albedo of Neptune's satellite, Triton from Voyager observations. *Geophys. Res. Lett.*, 17, 1761-1764.

Conrath, B., F.M. Flasar, R. Hanel, V. Kunde, M. Maguire, J. Pearl, J. Pirraglia, R. Samuelson, P. Gierasch, A. Weir, B. Bezard, D. Gautier, D. Cruikshank, L.J. Horn, R. Springer, and W. Shaffer. 1989. Infrared observations of the Neptunian system. *Science*, 246, 1454-1459.

Lane, A.L., R. West, C. Hord, R. Nelson, K. Simmons, W. Pryor, L. Esposito, L. Horn, B. Wallis, B. Buratti, T. Brophy, P. Yanamandra-Fisher, J. Colwell, D. Bliss, M. Mayo, and W. Smythe. 1989. Photometry from Voyager 2: Initial results from the Neptunian atmosphere, satellites and rings. *Science*, 246, 1450-1454.

Horn, L.J., P.A. Yanamandra-Fisher, L.W. Esposito, and A.L. Lane. 1988. Physical properties of Uranian delta ring from a possible density wave. *Icarus*, 76, 485-492.

Hanel, R., B. Conrath, F. M. Flasar, V. Kunde, W. Maguire, J. Pearl, J. Pirraglia, R. Samuelson, D. Cruikshank, D. Gautier, P. Gierasch, L.J. Horn, and P. Schulte. 1986. Infrared observations of the Uranian system. *Science*, 233,70-74.

Lane, A.L., C.W. Hord, R.A. West, L.W. Esposito, K.E. Simmons, R.M. Nelson, B.D. Wallis, B.J. Buratti, L.J. Horn, A.L. Graps, and W.R. Pryor. 1986. Photometry from Voyager 2: Initial results from the Uranian atmosphere, satellites and rings. *Science*, 23, 65-70.

Graps, A.L., A.L. Lane, L.J. Horn, and K.E. Simmons. 1984. Evidence for material between Saturn's A and F rings from Voyager 2 photopolarimeter experiment. *Icarus*, 60, 409-415.

Hanel, R., B. Conrath, F. Flasar, V. Kunde, W. Maguire, J. Pearl, R. Samuelson, D. Cruikshank, D. Gautier, P. Gierasch, L.J. Horn, and C. Ponnampereuma. 1982. Infrared observations of the Saturnian system from Voyager 2. *Science*, 215, 544-548.

Hanel, R., B. Conrath, F.M. Flasar, V. Kunde, W. Maguire, J. Pearl, J. Pirraglia, R. Samuelson, L. Herath, M. Allison, D. Cruikshank, D. Gautier, P. Gierasch, L.J. Horn, R. Koppany and C. Ponnampereuma. 1981. Infrared observations of the Saturnian system from Voyager 1. *Science*, 212, 192-200.

Hanel, R., B. Conrath, M. Flasar, L. Herath, V. Kunde, P. Lowman, W. Maguire, J. Pearl, J. Pirraglia, R. Samuelson, D. Gautier, P. Gierasch, S. Kumar, L.J. Horn, and C. Ponnampereuma. 1979. Infrared observations of the Jovian system from Voyager 2. *Science*, 206, 952-956.

Woolum, D., Bies-Horn, L., Burnett, D., August, L.S. 1979. Bismuth and ²⁰⁸Pb microdistributions in enstatite chondrites. *Geochimica et Cosmochimica Acta* Vol. 43, 1819-1828.

Abstracts

Spilker, Linda J., 2010, Cassini-Huygens in the Saturn System: Recent Science Highlights and the Solstice Mission, American Astronomical Society, DPS meeting #42, #8.03; Bulletin of the American Astronomical Society, Vol. 42, 954.

Spilker, Linda J.; Ferrari, C.; Morishima, R.; Flandes, A.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Edgington, S., 2010, Ring Equinox Temperature Variations from Cassini CIRS, American Astronomical Society, DPS meeting #42, #22.07; Bulletin of the American Astronomical Society, Vol. 42, 989

Spilker, Linda; Flandes, Alberto; Morishima, Ryuji; Leyrat, Cedric; Altobelli, Nicolas; Ferrari, Cecile; Brooks, Shawn; Pilorz, Stu, 2010, Saturn ring temperature changes before and after ring equinox, EGU General Assembly 2010, 5675.

Spilker, L. J.; Flandes, A.; Morishima, R.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Ferrari, C. C.; Edgington, S.; Brooks, S. M., 2009, Saturn Ring Temperatures at Equinox with Cassini CIRS, American Geophysical Union, Fall

Meeting 2009, abstract #P51B-1131.

Hansen, C. J.; Hammel, H. B.; Spilker, L. J., 2009, Argo: Exploring the Neptune System and Beyond, European Planetary Science Congress 2009, <http://meetings.copernicus.org/epsc2009>, p.796.

Spilker, L.; Altobelli, N.; Flandes, A.; Morishima, R.; Leyrat, C.; Pilorz, S.; Ferrari, C.; Edgington, S., 2009, Cassini CIRS thermal observations of Saturn's rings and their implications, European Planetary Science Congress 2009, held 14-18 September in Potsdam, Germany. <http://meetings.copernicus.org/epsc2009>, p.336.

Spilker, Linda J.; Altobelli, N.; Flandes, J. A.; Morishima, R.; Leyrat, C.; Pilorz, S.; Ferrari, C.; Edgington, S.; Brooks, S., 2009, Five years of Cassini CIRS Thermal Observations of Saturn's Rings, American Astronomical Society, DPS meeting #41, #25.01.

Spilker, Linda J.; Pappalardo, R.; 2009. Cassini Solstice Mission, American Astronomical Society, DPS meeting #41, #16.05.

Tsou, Peter; Kanic, I.; Lane, C.; Sotin, C.; Spilker, L.; Spilker, T.; Strange, N., 2009, LIFE, Life Investigation For Enceladus, American Astronomical Society, DPS meeting #41, #16.02.

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Spilker, L.; Flandes, A.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Ferrari, C., 2008. Modeling Saturn Ring Temperature Variations as Solar Elevation Decreases. [AGU FM.P13A1302S](#).

Brooks, S. M.; Spilker, L. J.; Pilorz, S. H.; Edgington, S. G.; Leyrat, C.; Altobelli, N.; Flandes, A. 2008. Cassini CIRS: Lessons Learned from the Prime Mission and Plans for Rings Observations in the Extended Mission. [AGUFM.P32A..05B](#).

Flandes, A.; Spilker, L.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Edgington, S. G. 2008. Temperature variation of Saturn's Rings with Solar Elevation. [AGUFM.P13A1301F](#).

Leyrat, C.; Spilker, L. J.; Pilorz, S.; Flandes, A.; Edgington, S. 2008. Prediction of Saturn's rings temperatures during the 2009 Equinox. [AGUFM.P13A1300L](#).

Nugent, C.; Spilker, L. J.; Edgington, S. G.; Pilorz, S.; Leyrat, C.; Altobelli, N.; Russell, C. T. 2008. Estimation of CIRS Sensitivity to Trace Constituents in Saturn's Main Rings. [AGUFM.P13A1299N](#).

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Spilker, Linda J.; Flandes, A.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Ferrari, C. 2008. Temperature Variations with Changing Solar Elevation in Saturn's Main Rings as Seen by Cassini CIRS. DPS meeting #40, #24.04; Bull. AAS, Vol. 40, 430.

Leyrat, Cedric; Spilker, L. J.; Ferrari, C.; Pilorz, S. H.; Flandes, A.; 2008. Thermal Inertia of Saturn's Rings Measured by CIRS Cassini. DPS meeting #40, #29.07; Bull. AAS, Vol. 40, 444.

Edgington, Scott G.; Spilker, L. J.; Leyrat, C.; Nugent, C. R.; Jennings, D. E.; Pilorz, S. H.; Pearl, J. C. 2008. Emissivity In The Thermal Ir: Composition And Polarization In Saturn's Rings With Cassini/CIRS: Part 2. DPS meeting #40, #29.04; Bull. AAS, Vol. 40, 443.

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Hammel, H. B.; Hansen, C. J.; Spilker, L. J.; Spilker, T. R.; Strange, N.; Stansberry, J.; Khurana, K. 2008. A Fresh Look at Exploring the Neptune System and Beyond. 39th LPSC, LPI #1391, 1117.

Spilker, L.; Pilorz, S.; Leyrat, C.; Altobelli, N.; Edgington, S.; Flasar, F.M. 2008. Saturn C Ring thermal behavior. 37th COSPAR, 2997.

Matson, D. L.; Lebreton, J.-P.; Spilker, L. 2008. Cassini-Huygens and the Wonderous Saturnian System. 37th COSPAR, 1950.

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McConnell, S.; Spilker, L.; Zimmerman-Brachman, R. 2007. Reading, Writing & Rings: Science Literacy for K-4 Students. AGU, Fall Meeting, abstract #ED31A-0098.

Pilorz, S.; Altobelli, N.; Leyrat, C.; Spilker, L. 2007. Thermal Studies of Saturn's Rings. AGU, Fall Meeting, abstract #P53E-02.

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