

VITA
Steven J. Ostro

- CURRENT POSITION: Senior Research Scientist
Asteroids, Comets & Satellites Research Element
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- BORN: Somerville, New Jersey, 1946
- DEGREES: Ph.D., Planetary Sciences,
Massachusetts Institute of Technology, 1978
M. Eng'g., Engineering Physics, Cornell University, 1974
B.S., Ceramic Science, Rutgers University, 1969
A.B., Liberal Arts, Rutgers University, 1969
- EMPLOYMENT: Senior Research Scientist, JPL, 1992 to present
Member of Technical Staff, JPL, 1984-1992
Assistant Professor of Astronomy, Cornell, 1979-1984
Postdoctoral Research Associate, MIT, 1978-1979
Research Ceramist, Corning Glass Works, 1970-1971
- HONORS & AWARDS: Gerard P. Kuiper Prize, Division for Planetary Sciences (DPS)
of the American Astronomical Society, 2003
NASA Medals for Exceptional Scientific Achievement, 1991 and 2004
Fellow, American Association for the Advancement of Science, 1999
NASA Group Achievement Awards
Solar and Heliospheric Observatory (SOHO) Recovery Team, 1999
Cassini Program / Cassini Radar Team, 1998
Toutatis Radar Experiment Team, 1994
Phi Beta Kappa, Tau Beta Pi, Sigma Xi, 1969

PROFESSIONAL
SOCIETIES:

Division for Planetary Sciences of the American
Astronomical Society
American Geophysical Union
Meteoritical Society
American Association for the Advancement of Science
Institute of Electrical and Electronics Engineers
Astronomical Society of the Pacific
International Astronomical Union

PROFESSIONAL
ACTIVITIES:

Associate/Consulting Editor, *Icarus* (1991-)
DPS Prize Subcommittee (2006-2007)
Project Scientist, Goldstone Solar System Radar, JPL (1988-)
Cassini Titan Radar Mapper Science Team (1990-)
Visiting Lecturer, Caltech (1988, 1990, 1992, 1994, 1996, 1998)
Europa Orbiter Science Definition Team (1997)
Europa Orbiter Science Working Group (1996)
Near-Earth Object Survey Working Group (1994-1995)
Planetary Astronomy Review Panel (1993)
Near-Earth Asteroid Returned Sample (NEARS) Study Group (1992)
DPS/AAS Committee (1989-1992)
Arecibo Science Advisory Committee (1989-1992)
Near-Earth-Object Detection and Interception Workshops (1991-1992)
Arecibo Upgrading Scientific Advisory Group (1991)
Astronomy and Astrophysics Survey Committee, Planetary and Radio
Panels (1990)
SAIC Workshop on the Role of Near-Earth Asteroids in the Space
Exploration Initiative (1990)
Associate Editor, *Journal of Geophysical Research* (1986-1988)
Planetary Astronomy Committee (1986-1988)
Lunar and Planetary Geosciences Review Panel (1986-1987)
Near-Earth Asteroid Rendezvous Science Working Group (1985)
Arranger, AAAS Symposium, "Comet Halley and Cosmic Kin:
Diminutive Worlds of Ice, Rock, and Metal" (1985)
Chair, DPS/AAS Program Committee (1983)
Scientific Organizing Committees:
2007 Planetary Defense Conference (2007)
Workshop on Remote Sensing of Planetary Ices (1997)
Icy Galilean Satellites International Conference (1994)
Io International Conference (1993)
Caltech Workshop on Planets Around Pulsars (1992)
International Conference on Near-Earth Asteroids (1991)
Asteroids II Conference (1988)

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Steven J. Ostro

PEER-REVIEWED PUBLICATIONS:

1. *The Structure of Saturn's Rings and the Surfaces of the Galilean Satellites as Inferred from Radar Observations.*
S. J. Ostro. Ph.D Thesis, Massachusetts Institute of Technology, Cambridge (1978).
2. Galilean Satellites: 1976 Radar Results.
D. B. Campbell, J. F. Chandler, S. J. Ostro, G. H. Pettengill, and I. I. Shapiro.
Icarus **34**, 254-267 (1978).
3. Icy Craters on the Galilean Satellites?
S. J. Ostro and G. H. Pettengill. *Icarus* **34**, 268-279 (1978).
4. Radar Observations of Asteroid 1580 Betulia.
G. H. Pettengill, S.J. Ostro, I. I. Shapiro, B. G. Marsden, and D. B. Campbell,
Icarus **40**, 350-354 (1979).
5. Radar Observations of Asteroid 1 Ceres.
S. J. Ostro, G. H. Pettengill, I. I. Shapiro, D. B. Campbell, and R. R. Green.
Icarus **40**, 355-358 (1979).
6. Radar Observations of Saturn's Rings at Intermediate Tilt Angles.
S. J. Ostro, G. H. Pettengill, and D. B. Campbell. *Icarus* **41**, 381-388 (1980).
7. Radar Detection of Vesta.
S. J. Ostro, D. B. Campbell, G. H. Pettengill, and I. I. Shapiro. *Icarus* **43**, 169-171 (1980).
8. Radar Observations of the Icy Galilean Satellites.
S. J. Ostro, D. B. Campbell, G. H. Pettengill, and I. I. Shapiro. *Icarus* **44**, 431-440 (1980).
9. Delay-Doppler Radar Observations of Saturn's Rings.
S. J. Ostro, G. H. Pettengill, D. B. Campbell, and R. M. Goldstein. *Icarus* **49**, 367-381 (1982).
10. Comet Encke: Radar Detection of Nucleus.
P. G. Kamoun, D. B. Campbell, S. J. Ostro, G. H. Pettengill, and I. I. Shapiro.
Science **216**, 293-295 (1982).
11. Radar Properties of Europa, Ganymede, and Callisto.
S. J. Ostro. In *Satellites of Jupiter* (D. Morrison, ed.), Univ. of Arizona Press, pp. 213-236 (1982).
12. Dual-Polarization Radar Observations of Mars: Tharsis and Environs.
J. K. Harmon, D. B. Campbell, and S. J. Ostro. *Icarus* **52**, 171-187 (1982).

13. Planetary Radar Astronomy.
S. J. Ostro. *Rev. Geophys. Space Phys.* **21**, 186-196 (1983).
14. Radar Observations of Asteroid 1685 Toro.
S. J. Ostro, D. B. Campbell, and I. I. Shapiro. *Astron. J.* **88**, 565-576 (1983).
15. Convex Profiles from Asteroid Lightcurves.
S. J. Ostro and R. Connelly. *Icarus* **57**, 443-463 (1984).
16. Glass on the Surfaces of Io and Amalthea.
J. Gradie, S. J. Ostro, P. C. Thomas, and J. Veverka. *J. Non-Crystalline Solids* **67**, 421-432 (1984).
17. Radar and Photoelectric Observations of Asteroid 2100 Ra-Shalom.
S. J. Ostro, A. W. Harris, D. B. Campbell, I. I. Shapiro, and J. W. Young.
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18. A Review of Radar Observations of Saturn's Rings.
S. J. Ostro and G. H. Pettengill. In *Planetary Rings 1982* (A. Brahic, ed.),
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19. Ellipsoids and Lightcurves.
R. Connelly and S. J. Ostro. *Geometriae Dedicata* **17**, 87-98 (1984).
20. Mars: Dual-Polarization Radar Observations with Extended Coverage.
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21. Mainbelt Asteroids: Dual-Polarization Radar Observations.
S. J. Ostro, D. B. Campbell, and I. I. Shapiro. *Science* **229**, 442-446 (1985).
22. Radar Observations of Asteroids and Comets.
S. J. Ostro. *Publ. Astron. Soc. Pacific* **97**, 877-884 (1985).
23. Radar Astrometry of Near-Earth Asteroids.
D. K. Yeomans, S. J. Ostro, and P. W. Chodas. *Astron. J.* **94**, 189-200 (1987).
24. Physical Properties of Asteroids from Radar Observations.
S. J. Ostro. In *The Evolution of the Small Bodies in the Solar System* (M. Fulchignoni
and L. Kresák, eds.), Soc. Italiana di Fisica, Bologna, Italy, pp. 131-146 (1987).
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26. Convex-Profile Inversion of Asteroid Lightcurves: Theory and Applications.
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K. D. Rosema, I. I. Shapiro, E. M. Standish, R. Winkler, D. K. Yeomans, R. Velez,
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57. Orbits Close to Asteroid 4769 Castalia.
D. J. Scheeres, S. J. Ostro, R. S. Hudson and R. A. Werner. *Icarus* **121**, 67-87 (1996).
58. Photometric Observations and Modeling of asteroid 1620 Geographos.
P. Magnusson, M. Dahlgren, M. A. Barucci, L. Jorda, R. P. Binzel, S. M. Slivan, C. Blanco, D. Ruccioli, B. J. Buratti, F. Colas, J. Berthier, G. de Angelis, M. Di Martino, E. Dotto, J. D. Drummond, U. Fink, M. Hicks, W. Grundy, W. Wisniewski, N. M. Gaftonyuk, E. H. Geyer, T. Bauer, M. Hoffman, V. Ivanova, B. Komitov, Z. Donchev, P. Denchev, Yu. N. Krugly, F. P. Velichko, V. G. Chiorny, D. F. Lupishko, V. G. Shevchenko, T. Kwiatkowski, A. Kryszczynska, J. F. Lahulla, J. Licandro, O. Mendez, S. Mottola, A. Erikson, S. J. Ostro, P. Pravec, W. Pych, D. J. Tholen, R. Whiteley, W. J. Wild, M. Wolf, and L. Sarounová. *Icarus* **123**, 227-244 (1996).
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D. L. Mitchell, S. J. Ostro, R. S. Hudson, K. D. Rosema, D. B. Campbell, R. Velez, J. F. Chandler, I. I. Shapiro, J. D. Giorgini, and D. K. Yeomans. *Icarus* **124**, 113-133 (1996).
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A. L. Zaitsev, S. J. Ostro, S. P. Ignatov, D. K. Yeomans, A. G. Petrenko, D. Choate, O. K. Margorin, R. A. Cormier, V. V. Mardyshkin, R. Winkler, O. N. Rghiga, R. F. Jurgens, V. A. Shubin, J. D. Giorgini, A. P. Krivtsov, K. D. Rosema, Y. F. Koluka, M. A. Slade, A. L. Gavrik, V. B. Andreev, D. V. Ivanov, P. S. Peshin, Y. Koyama, M. Yoshikava, A. Nakamura. *Planetary Space Sci.* **45**, 771-778 (1997).
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J. K. Harmon, S. J. Ostro, L. A. M. Benner, K. D. Rosema, R. F. Jurgens, R. Winkler, D. K. Yeomans, D. Choate, R. Cormier, J. D. Giorgini, D. L. Mitchell, P. W. Chodas, R. Rose, D. Kelley, M. A. Slade, and M. L. Thomas. *Science* **278**, 1921-1924 (1997).
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L. A. M. Benner, S. J. Ostro, K. D. Rosema, J. D. Giorgini, D. Choate, R. F. Jurgens, R. Rose, M. A. Slade, M. L. Thomas, R. Winkler, and D. K. Yeomans. *Icarus* **137**, 247-259 (1999).
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C. Magri, J. D. Giorgini, and D. K. Yeomans. *Science* **288**, 836-839 (2000).
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M. K. Shepard, L. A. M. Benner, S. J. Ostro, A. W. Harris, K. D. Rosema,
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R. S. Hudson, S. J. Ostro, R. F. Jurgens, K. D. Rosema, J. D. Giorgini, R. Winkler,
R. Rose, D. Choate, R. A. Cormier, C. R. Franck, R. Frye, D. Howard, D. Kelley,
R. Littlefair, M. A. Slade, L. A. M. Benner, M. L. Thomas, D. L. Mitchell,
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J. D. Giorgini, M. A. Slade, D. K. Yeomans, D. L. Rabinowitz, Y. N. Krugly, and
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