Stuart Pilorz

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SETI Institute
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Interests and Expertise:

Mathematical modelling and inverse problems. Expertise in problems associated with biologicial oceanography, galaxy formation, atmospheric aerosols, Saturn's rings.

Education:

1997 Ph.D. Oxford University, Dept. of Astrophysics, "Galactic Winds and Cooling Flows"
1987 M.Sc. Claremont Graduate School, Applied Mathematics
1986 B.Sc. Harvey Mudd College, Physics and Mathematics

Employment History:

08/2008-present SETI Institute, Principal Investigator
05/1986-05/2008 NASA, Caltech JPL
- 10/02-05/08: Comets and Asteriods Group, Cassini CIRS affiliate
- 10/96-10/02: Multi-Angle Sensors Group, MISR validation team
- 10/90-10/96: Academic leave, Oxford University
- 10/90-10/92, Mathematical Institute, Centre for Industrial and Applied Mathematics
- 10/92-10/96, Dept. of Astrophysics
- 09/86-09/92: Biological Oceanography Group
- 05/86-09/87: Geophysics and Planetary Science, Voyager PPS experiment

10/90-10/91 ESA/ESTEC, MERIS design consultancy team for oceanography
05/85-05/86 Perkin-Elmer Corporation, mass spectrometry group

Recent Publications:

Ferrari, C., *et al*, "Structure of self-gravity wakes in Saturn's A ring as measured by Cassini CIRS", Icarus, 199, 145-153, 2009

Leyrat, C., *et al.* "Spinning particles in Saturn's C ring fom mid-infrared observations", Icarus, 196, 625-641, 2008

Altobelli, N. *et al.* "Thermal observations of Saturn's main rings by Cassini CIRS: Phase, emission and solar elevation dependence", Planetary and Space Science, 56, 134-146, 2008

Leyrat, C., *et al.* "Infrared observations of Saturn's rings by Cassini CIRS: Phase angle and local time dependence", Planetary and Space Science, 56, 117-133, 2008

Altobelli, N. *et al.* "C Ring fine structures revealed in the thermal infrared", Icarus, 191, 691-701,2007

Spilker, L., *et al.* "Cassini Thermal Observations of Saturn's main rings: Implications for particle rotation and vertical mixing", 2006, Planetary and Space Science, 54, Issues 12, 1167-1176

Spilker, L., *et al.* "Cassini CIRS observations of a roll-off in Saturn ring spectra at submillimeter wavelengths", Earth, Moon and Planets, 2005, Volume 96, Issue 3-4, 149-163

Flasar *et al.*, "Temperatures, winds, and composition in the saturnian system." *Science* **307**, 1247-1251, 2005

Spilker, L., **et al.**, "Saturn A Ring Surface Mass Densities from Spiral Density Wave Dispersion Behavior", ICARUS, 171, 372-390, 2004

McMuldroch, S., S. H. Pilorz, and G. E. Danielson, Galileo NIMS Near-Infrared Observations of Jupiter's Ring System, ICARUS, 146, 1-11, 2000