

Dr. Silvia Protopapa

Principal Scientist
Space Studies Division
Southwest Research Institute (Boulder
Office)

Email: [Contact via SwRI or ORCID profile] | ORCID: 0000-0001-8541-8550

Professional Profile

Planetary scientist specializing in the compositional and physical characterization of small bodies in the outer Solar System (e.g., comets, trans-Neptunian objects). Utilizes spacecraft and ground/space-based infrared spectral imaging and laboratory spectral modelling to infer surface and near-surface properties, evolution, and origin of icy solar system objects.

Education

Ph.D. in Planetary Science / Astronomy – [Institution & Year not publicly listed].

Professional Appointments

- Principal Scientist, Space Studies Division, Southwest Research Institute, Boulder, CO (current)
- Researcher / Assistant Research Scientist, Department of Astronomy, University of Maryland, College Park.

Selected Research & Mission Involvement

- Participated in and led investigations using spacecraft datasets (e.g., New Horizons) to map icy body surfaces (Pluto, Charon) and model volatile ice distributions.
- Ground- and space-based infrared spectral observations of comets and trans-Neptunian objects; laboratory spectroscopy and modelling of icy surfaces.
- Contributed to mission support and data analysis campaigns of outer Solar System bodies.

Selected Publications & Impact

Over 2,900 citations (Google Scholar). Authored or co-authored 170+ papers on topics including water and ammonia ices on Pluto/Charon, methane cycles, Kuiper Belt object compositions, and comet outbursts.

Key Skills & Techniques

Infrared spectral imaging and spectroscopy of icy bodies; Laboratory simulation of ices and spectral modelling; Remote sensing data analysis; Small-body composition interpretation; Mission science-team collaboration.

Service & Professional Activities

- Member of science teams for planetary missions.
- Reviewer for planetary science journals and contributor to community white papers.
- Mentor and collaborator on graduate and post-doctoral research projects.

Honors & Recognitions

Appointment as Principal Scientist at SwRI reflects recognition of leadership in planetary small-body science. Citation and publication metrics indicate significant impact in the field.

Professional Contact

Space Studies Division, Southwest Research Institute – Boulder Office
1050 Walnut Street, Suite 300, Boulder, CO 80302, USA
Website: www2.boulder.swri.edu