

GAL SARID, Ph.D.

Earth & Planetary Scientist | Remote Sensing | Scientific Computing

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PROFILE

Earth and planetary scientist with experience spanning satellite instrument calibration, small-body physics, numerical modeling, and mission science. Current work at Science Systems and Applications, Inc. (SSAI) supports MODIS and VIIRS calibration activities at NASA Goddard. Earlier research focused on comets, Centaurs, asteroids, and icy planetesimals, including their thermal evolution, dynamics, activity, and ejecta environments.

CURRENT POSITION

Senior Research Scientist | Science Systems and Applications, Inc. (SSAI) **2019–Present**

- Support Terra and Aqua MODIS reflective solar band calibration as a member of the MODIS Characterization Support Team.
- Support NOAA-20 and Suomi NPP VIIRS day-night-band calibration as a member of the VIIRS Characterization Support Team.
- Develop and use scientific-analysis workflows for calibration trending, measurement characterization, validation, and interpretation.
- Recent published work includes MODIS post-orbital-drift calibration strategies and VIIRS day-night-band calibration/performance studies.

PRIOR RESEARCH APPOINTMENTS

Scientist / Research Faculty | Florida Space Institute, University of Central Florida **2014–2019**

- Research on comets, asteroids, small-body dynamics, thermal evolution, ejecta, and space-mission science.

Postdoctoral Research Associate | Earth & Planetary Sciences, Harvard University **2012–2014**

- Computational studies of shock physics, physical-chemical processing, and early planet-formation environments.

Postdoctoral Researcher / Research Fellow | Institute for Astronomy & NASA **2009–2012**

Astrobiology Institute, University of Hawai‘i

- Observational analysis and numerical modeling of small bodies, including heat and mass transfer and Centaur/comet evolution.

Teaching and Research Assistant | Tel Aviv University **2003–2009**

- Computational modeling of the thermal and structural evolution of comet nuclei; teaching in geophysics and planetary science.

EDUCATION

Ph.D. in Geosciences — Planetary Sciences | Tel Aviv University **2010**

- Thesis: Thermal & Structural Evolution of Small Bodies in the Solar System.

B.Sc. in Geophysics, Atmospheric & Planetary Sciences, Cum Laude | Tel Aviv University **2003**

TECHNICAL AREAS

Remote sensing	Radiometric calibration; instrument characterization; time-series trending; validation; data quality
Modeling	Orbital dynamics; heat and mass transfer; small-body evolution; ejecta dynamics; uncertainty/sensitivity analysis
Computing	Python; C/C++; Fortran; shell scripting; Linux/Unix; Git

SELECTED COLLABORATIVE ROLES

- DART / Didymos: participant in Dynamical and Physical Properties investigation work; coauthor of later modeling of spatial and temporal ejecta outcomes in Didymos-like binary systems.
- Rubin Observatory LSST Solar System Science Collaboration: publication coordinator, helping manuscripts move through the collaboration publication-policy process.

SELECTED PUBLICATIONS

2026	Xiong, X., et al. (including G. Sarid). “Terra MODIS Mission Operation, Calibration, and Performance.” <i>Journal of Applied Remote Sensing</i> 20(2), 027502.
2025	Bauer, J., Ivanova, O., McKay, A., & Sarid, G. “Activity, Outbursts and Explosions.” In <i>Centaurs</i> .
2024	Twedt, K., Xiong, X., Sarid, G., & Kwasizur, J. “Continuing impact of satellite orbit drift on MODIS solar diffuser calibrations.” <i>Proc. SPIE</i> 13192.
2024	Chen, H., Link, D. O., Sarid, G., Chiang, K. V., et al. “On-orbit calibration and performance of the NOAA-21 VIIRS day-night band.” <i>Proc. SPIE</i> .
2024	Larson, J. N., Fernández, Y. R., & Sarid, G. “Categorization of Spatial and Temporal Ejecta Outcomes in Binary Systems Based on Variations of the Didymos System.” <i>The Planetary Science Journal</i> 5(1):5.
2022	Sarid, G., Twedt, K., & Xiong, X. “MODIS solar diffuser calibration strategies for the post orbital drift era.” <i>Proc. SPIE</i> 12232.
2019	Sarid, G., Volk, K., Steckloff, J. K., Harris, W., Womack, M., & Woodney, L. M. “29P/Schwassmann–Wachmann 1, A Centaur in the Gateway to the Jupiter-Family Comets.” <i>ApJ Letters</i> 883:L25.
2009	Sarid, G. & Prialnik, D. “From KBOs to Centaurs: The thermal connection.” <i>Meteoritics & Planetary Science</i> 44(12), 1905–1916.

SELECTED PROFESSIONAL ACTIVITY

- NASA and NSF proposal/review panels, including panel and external-review service documented in the public academic CV.
- Scientific presentations and workshops in planetary science, remote sensing, calibration, and mission concepts.
- Programming and research workflows: Python, C/C++, Fortran, shell, Linux/Unix, Git.

PUBLIC PROFILES

LinkedIn: <https://www.linkedin.com/in/gal-sarid/>

NASA: <https://science.gsfc.nasa.gov/sci/bio/gal.sarid>

ORCID: <https://orcid.org/0000-0001-5678-5044>

Google Scholar: https://scholar.google.com/citations?user=f2A_wOEAAAAJ&hl=en