

GAL SARID, Ph.D.

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Research Scientist

- Results-driven and motivated candidate. Experienced researcher.
- PhD in Planetary Physics. Green card holder.
- Interested in challenging positions at the forefront of technology, modeling and innovation.
- Research experience in computational tools, numerical applications and complex data analysis. Seeking to transition to a career role in applied research and development, incorporating programming and data intensive projects.
- Strong attention to detail and efficient research abilities provide the foundation to excel, as evidenced by project research roles within leading institutes and diverse applications (Harvard, University of Hawaii, NASA Astrobiology Institute, University of Central Florida).
- Experience working in collaboration with interdisciplinary and distributed teams:
 - Projects involving federal standards and schedules (NASA, NSF).
 - Integration with engineering, science and administration teams.
 - Successful completion of large-scale projects and proposals with clear deliverable results.
 - Management of timeline, work plan and budget, within confines of a given project.
 - Communication of results and procedures (publications, reports, presentations).
 - Engagement at team, organization and community levels.
- Experienced and proficient in the following, through previous research and development roles:
 - Prototyping solutions for complex physics problems, from first principles approach to numerical simulation.
 - Collection and examination of large volumes of complex data.
 - Programming with various languages and platforms.
 - Development, implementation and integration of dynamic programming, software tools, analytical processes, system architecture and instrumentation concepts.

CORE PROFICIENCIES

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| <ul style="list-style-type: none">• Physics-based & Mathematical Modeling• Algorithm development & validation• Analysis of Complex Data Sets• Software Integration & Testing | <ul style="list-style-type: none">• Strong Collaborative Attitude• Team & Schedule Management• Writing, Editing & Reviewing Technical Documents | <ul style="list-style-type: none">• Research Expertise (Astronomy, Geophysics)• Numerical Analysis• Scientific Computing• Applied Mathematics |
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Programming and tools: C/C++, Fortran, Python, Matlab, Shell Script, Linux/MacOS/Windows, Git, HTML, MPI, LaTeX.

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PROFESSIONAL EXPERIENCE

RESEARCH SCIENTIST | University of Central Florida | 2014 to Present

- Develops complex numerical models of thermodynamic and hydrodynamic processes in planetary bodies.
- Leads and guides development of software modules for particle and grid-based calculations of physical systems.
- Serves as the architect of observation and exploration strategies to be implemented using telescopes, small satellites, spacecraft instrument payloads and surface lander vehicles.
- Leads technical reports and grant proposals with professional community partners.
- Actively participates in a variety of educational activities within the university's Physics and Aerospace programs.

RESEARCH ASSOCIATE | Harvard University | 2012 to 2014

- Led the numerical and analytical modeling of shock physics and physical-chemical processing of comets and asteroids. Developed numerical models of impact processes during the early phases of terrestrial planet formation.
- Designed and implemented computational tools to analyze large numerical simulations and fit to real-world data.
- Led technical reports and grant proposals with professional community partners.

RESEARCH ASSOCIATE | University of Hawaii, Institute for Astronomy | 2009 to 2012

- Developed software package and numerical implementation of thermal physics for models describing the non-linear evolution of interiors and surfaces of active asteroids and cometary bodies.
- Provided support and computational analysis tools for solar system observations, including fitting of real-world data to numerical models and optimization of data analysis and reduction implementations.

RESEARCH FELLOW | NASA Astrobiology Institute | 2009 to 2012

- Led numerical calculations and implementation of software tools towards research objectives at this organization that investigates the origin, history, and distribution of water and its relation to life in the universe.
- Developed code for physics-based modeling and visualization to support science case development and concept of operations for a large space mission proposal.

EDUCATION & PROFESSIONAL AFFILIATIONS

Ph.D. in Planetary Sciences

Tel Aviv University (2010)

Bachelor of Science Degree in Geophysics & Planetary Sciences (Cum Laude)

Tel Aviv University (2003)

Teaching and Research Assistant, Department of Geophysics & Planetary Sciences

- *NASA Discovery Program Mission Projects Co-Investigator (2010 – 2011, 2018 – Present)*
- *NASA DART Mission Investigation Team member (2018 – Present)*
- *LSST Solar System Science Collaboration member (2017 – Present)*
- *NASA/OPAG Roadmaps to Ocean Worlds (ROW) Working Group member (2017 – 2018)*
- *WFIRST Solar System Working Group member (2016 – Present)*
- *AAS Astronomy Ambassador Program representative (2014 – Present)*
- *Harvard Postdoc Advisory Board member (2012 – 2014)*
- *Member of the American Astronomical Society (Division of Planetary Sciences), American Geophysical Union and International Astronomical Union.*