WELCOME

Dr. Simone D'Amico

Assist. Prof., SU Aeronautics and Astronautics (AA) Founding Director, SU Space Rendezvous Lab (SLAB) Satellite Advisor, SU Student Space Initiative (SSSI) Chairman, NASA Starshade Technology Group (TSWG) Associate Editor, AIAA Journal of Guidance, Control, Dynamics (JGCD) Associate Editor, IEEE Trans. Aerospace and Electronic Systems (TAES)





























Goal: Help SIP maximize TRL of starshades to enable future exoplanet science missions





GROUP 1 – Sharpening Aim

- Identify solutions to challenges faced by the S5 development activity
- Propose new approaches, techniques, and research beyond planned S₅ activities that can maximize starshade technology readiness





GROUP 2 – Selecting our Targets

- Document new mission concept drivers for starshade technology performance requirements
- Maintain alignment between S5 technology development activities and future mission needs

GROUP 3 – Inclusion and Participation



Facilitate groups of investigators to communicate research, new technology, and new mission concepts across disciplinary, organizational, and geographic boundaries

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Enable continued participation of the community in NASA's starshade technology development activities

GROUP 1 – Sharpening Aim

- Identify solutions to challenges faced by the S5 development activity
- Propose new approaches, techniques, and research beyond planned S₅ activities that can maximize starshade technology readiness
- Provide rationale and technical basis for the error budget in a self-contained document
- Design and support community data challenges to increase fidelity of KPPs' traceability to scientific objectives.
- Perform additional investigation into scaling of vector diffraction
- Determine if new testbed is needed for TRL 6 and identify top level requirements on that testbed



GROUP 2 – Selecting our Targets

- Document new mission concept drivers for starshade technology performance requirements
- Maintain alignment between S5 technology development activities and future mission needs
- Given the current landscape of starshade concepts, survey and assess TRL of required and enabling technologies
- Based on the previous action, support the further development of identified technologies which have broad applicability to starshades



Adam Koenig, Simone D'Amico (Stanford)

GROUP 3 – Inclusion and Participation

- Facilitate groups of investigators to communicate research, new technology, and new mission concepts across disciplinary, organizational, and geographic boundaries
- Enable continued participation of the community in NASA's starshade technology development activities

 Involve and engage students and the broader community with SIP through several initiatives Astronomical Telescopes, Instruments, and Systems



JATIS Website

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