

Keck Institute for Space Studies

List of Technical Development Programs

2023

- [Towards Low-Noise Microwave Amplifiers with Outstanding Room-Temperature Noise Performance](#)

2020

- [Development of a Compact, All-Photonic, Dynamic Laser Frequency Comb Spectrum Flattener](#)

2015

- [Techniques and Technologies for Investigating the Interior Structure of Venus](#)
- [Science-driven Autonomous and Heterogeneous Robotic Networks: A Vision for Future Ocean Observations](#)
- [Technology Assessment of a Space Flight Demonstration LaserSail Propulsion](#)
- [ULTRASAT: Imaging Properties of Delta-Doped CCDs](#)

2014

- [Resilient Risk-Aware Autonomy for the Exploration of Uncertain and Extreme Environments](#)
- [PhotoSpec - Comprehensive Ground-Based Studies of Solar-Induced Chlorophyll Fluorescence - Tracking Seasonal, Diurnal and Fine Spatial Variability](#)

2013

- [In Situ Science and Instrumentation for Primitive Bodies: Constraining the Origin of the Jupiter Trojans by In Situ Measurement of Volatiles, Minerals, and Ices](#)
- [Next Generation UV Instrument Technologies](#)
- [GALEX Complete the Sky Survey \(GCSS\): A Fundamental Milky Way Legacy Dataset](#)

2012

- [Developing Space-based Strategies to Monitor Megacity GHG Emissions](#)
- [Asteroid Retrieval](#)
- [Intensity Mapping of Carbon Monoxide from the Epoch of Reionization](#)
- [Mapping the Epoch of Reionization with C+ Line Tomography](#)
- [Characterization & Modeling of Spacecraft Regolith Interactions](#)

2011

- [Mission Concepts for Accessing and Sampling High-Risk Terrain](#)
- [Future Missions to Titan: Scientific and Engineering Challenges](#)

2010

- [Development of Ultrasensitive Photon Detectors and Microwave Amplifiers Using Superconducting Nitride Thin Films](#)
- [Monitoring Earth Surface Changes from Space](#)

2009

- [Robotic Exploration and Sampling of Mars](#)
- [Large Space Structures](#)
- [Coherent Arrays for Astronomy and Remote Sensing](#)

