
Infrared Remote Sensing and Instrumentation XXVII

This conference has an open **call for papers**:

SUBMIT AN ABSTRACT

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[Submission guidelines for Authors and Presenters](#)

Important Dates

[SHOW](#) | [HIDE](#)

Abstract Due:
30 January 2019

Author Notification:
8 April 2019

Manuscript Due Date:
17 July 2019

Conference Committee

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Conference Chairs

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Call for Papers

A great deal of knowledge about the Earth's environment and about space (including outer space) has recently been acquired using infrared remote sensing and astronomical techniques. In this conference we plan to bring together scientists and engineers involved with the design, engineering, and data analysis of existing and future infrared remote sensing instruments, including scientific returns obtained from remotely collected data.

Areas of interest include:

- scientific objectives for future missions
- scientific results for those missions that have flown
- instrument design requirements to meet mission objectives and the resultant design and implementation experiences
- sensor technology challenges in meeting instrument requirements
- instrument and sensor integration challenges and experiences
- planned and required enabling technologies.

Papers are solicited on the following and related topics:

Remote Sensing Fundamentals

- radiometry and energy throughput
- imaging
- fundamental limits to IR imaging, including detector quantum noise and background limit
- stray light considerations, including analysis, signal-to-noise, and instrument performance limitations
- instrument calibration, comparison of predicted and measured results
- space environment and radiation effects
- calibration and testing
- data analysis
- standards and characterization of components and materials
- IR/electro-optical system modeling and simulations
- non-contact and non-invasive technique.

Instrument Observational Facilities

- Planck Observatory
- James Webb Space Telescope
- SPICA Far-IR Facility
- SAFIR Telescope
- Darwin
- IRTF
- SOFIA



HERSCHEL.

Instruments and their Scientific Returns

bolometers
spectrometers
imaging cameras
photometers (multiband)
radiometers
imaging and nonimaging interferometers
microcameras
interferometer.

Remote Sensing

Earth resource mapping
atmosphere and weather prediction
space exploration
remote diagnostics and monitoring in human-unfriendly and disaster environments (nuclear power plants, earthquake, tsunami and mines)
natural and human-made fires and their propagation
remote monitoring of humans and animals in quarantine and controlled access environment
remote calibration.

Enabling Technologies

sensor design
cold read-out electronics
infrared materials.

Infrared Telescopes for Earth Remote Sensing, Focal Plane Technology, and Detection Schemes

near-IR detectors
IR detectors
mid-IR detectors and sources
far-IR detectors
sub-mm detectors
focal plane layout and architecture.

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