RIT COLLEGE OF SCIENCE
ASTROPHYSICS COLLOQUIUM

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4:15 – 5:15 PM
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First results from SOFIA early science observations

We will describe the rationale, status, and potential of the Stratospheric Observatory for Infrared Astronomy (SOFIA), which has sucessfully started semi-regular observing flights in 2011. SOFIA is a Boeing 747-SP aircraft, modified to carry a 2.5m telescope capable of diffraction-limited observations at lambda>20microns. It flies at altitudes up to 45000 feet, above more than 99% of the precipitable water vapor.
With a projected lifetime of 20 years it will outlive the Herschel satellite and will be the premier far-infrared platform for the next decade or two.

First SOFIA science results include mid-IR (5-40mu) imaging of the Orion BNKL region and the galactic circumnuclear disk (with FORCAST, a camera from Cornell University; PI T. Herter) as well as Tera-Hertz spectroscopic maps of warm CO and the ionized carbon line at 158 microns in the M17SW star forming region (with GREAT, a high spectral resolution heterodyne spectrometer from MPIfR Bonn; PI R. Guesten).
SOFIA is a joint project between NASA (80%) and the German DLR (20%). A new call for open time proposals will be issued in mid-Oct 2011.

Biographical information: Hans Zinnecker, a well-known astrophysicist from Germany with a broad theoretical and observational background in the field of star formation, is the SOFIA Science Mission Operations Deputy Director. Zinnecker, a world-leading expert in young stars and their initial mass function, covers a vast spectrum in both high-mass and low-mass star formation, including binaries, disks, jets, and exoplanets. He has contributed to many topical international conferences and meetings and served on many international committees (e.g. ESO, ESA, EC, IAU). He was the President of IAU Commission 26 on binary stars, and has been a member of several international astronomy prize selection panels.

As SOFIA Mission Operations Deputy Director, Zinnecker co-directs SOFIA's overall scientific mission and is responsible for the Observatory's productivity. He also represents the German interests in both SOFIA's science and management, and is responsible for the US-based staff of the Deutsches SOFIA Institute. Amongst his various challenges is his hope to convert Herschel users to SOFIA users.