Columbia University

SPIE/OSA student chapter and IGERT Seminar

"James Webb Space Telescope: The First Light Machine"

Abstract: Scheduled to begin its 10 year mission after 2018, the James Webb Space Telescope (JWST) will search for the first luminous objects of the Universe to help answer fundamental questions about how the Universe came to look like it does today. At 6.5 meters in diameter, JWST will be the world's largest space telescope. This talk reviews science objectives for JWST and how they drive the JWST architecture, e.g. aperture, wavelength range and operating temperature. Additionally, the talk provides an overview of the JWST primary mirror technology development and fabrication status.

BIO: Dr. H. Philip Stahl is a Senior Optical Physicist at NASA MSFC currently leading a study to mature mirror technologies for a new large aperture UV/Optical/IR telescope to replace Hubble. Previous assignments include Astrophysics Division Deputy Assistant Director for Technology; and the James Webb Space Telescope (JWST) Optical Telescope Element (OTE) Mirror Optics Lead responsible for the primary, secondary and tertiary mirrors. Dr. Stahl co-authored two NASA technology studies: Science Instruments, Observatories and Sensor Systems Technology Roadmap; and Advanced Telescope and Observatory Capability Roadmap. Dr. Stahl was responsible for developing candidate primary mirror technologies for JWST, including AMSD; and was a voting member of the JWST Source Evaluation Board. Additionally, he is the originator of the annual "Mirror Technology Days in the Government" workshops.

Dr. H. Philip Stahl
NASA Marshall Space Flight Center

Monday, March 25
5.30PM – 7.00PM
750 CEPSR
Food will be served

Hosted IGERT and SPIE/OSA student chapter • For further information: 212 851 4266, ss4198@ee.columbia.edu