



SANTA CLARA UNIVERSITY

Department of Mechanical Engineering

Mechanical Engineering Seminar Series

Thermal Engineering for Space Applications

Dr. Tung T. Lam
Director of the Spacecraft Thermal Department
The Aerospace Corporation, El Segundo, California

Date: Wednesday, March 15, 2017

Time: 4:00 – 5:00 pm

Location: Bannan Engineering, EC 326

Abstract

This seminar focuses on the thermal analysis and design process applicable to space applications. Emerging thermal control technologies for space system designs will be addressed. Furthermore, solutions to several heat conduction models in micro/nanoscale heat transfer are presented as well as a generalized analytical solution for the electron and lattice temperatures in a metallic film exposed to an ultrafast laser source are included in this talk.

Biography

Dr. Tung Lam is the Director of the Spacecraft Thermal Department at The Aerospace Corporation, El Segundo, California. Over the past thirty years, he has supported the U. S. government's efforts in the design, testing, and launch of many major U.S. Air Force space systems and NASA space exploration missions including the Cassini/Huygens mission to Saturn. He has supported the thermal design of the GPS constellation and launch activities continuously since the late 1980s.

Dr. Lam received his B.S. and M.S. degrees from the Missouri University of Science and Technology, and his Ph.D. from Rice University, all in mechanical engineering. He has published more than 70 journal papers, conference proceedings, and book chapters in the area of thermosciences.

He is a contributing author to major sections of Aerospace's Spacecraft Thermal Control Handbook, the organizer of the annual Spacecraft Thermal Control Workshop at Aerospace and several international conferences, an instructor of the short course Satellite Thermal Control at the University of California, Los Angeles and for the American Institute of Aeronautics and Astronautics (AIAA) Professional Development Programs. Dr. Lam serves as Associate Editor of AIAA's Journal of Thermophysics and Heat Transfer. He is the holder of three U.S. patents, a licensed Professional Engineer in Alabama, Michigan, and Texas, a fellow of the American Society of Mechanical Engineers (ASME), an associate fellow of the AIAA, and the recipient of Aerospace's 2013 Dr. Alexander C. Liang Asian Pacific American Achievement Award.