

# KLEIN LECTURE in Aerospace Engineering

Graduate Aerospace Laboratories of the California Institute of Technology

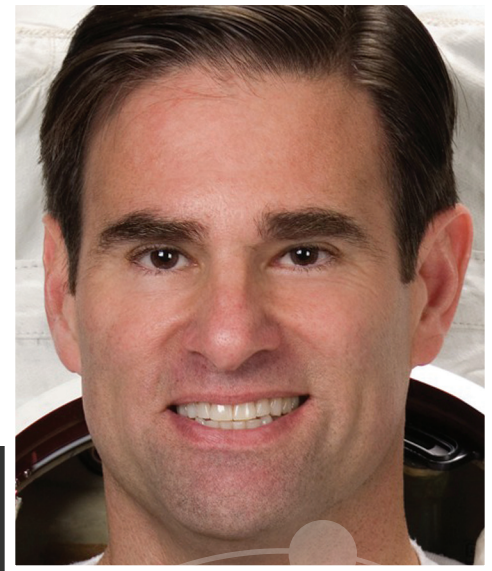
## Living and Working on the International Space Station

Last year, Dr. Greg Chamitoff (Caltech Alum MS Aero '85) was the NASA Flight Engineer and Science Officer onboard the International Space Station as part of the Expedition 17 and 18 crews. He launched to the station with the crew of Shuttle STS-124 on May 31, 2008, which brought up and installed the largest module on the Station—the Japanese Experiment Module (JEM), also called 'Kibo' (meaning Hope). The care and configuration of this module to kick off the Japanese science program was one focus of Greg's work. With the recent addition of the European research module, called 'Columbus', and ongoing investigations in the US segment, Expedition 17 marked the transition to a period of much greater utilization of the Station for science. Part of this transition involved preparing the Station to support a continuous crew of 6 (versus 3), and the arrival of Space Shuttle STS-126 brought the additional required life-support and water recycling capability for this purpose. STS-126 was also Greg's ride home, after living and working in Space for 183 days as part of two Shuttle and two Space Station crews. Please join us while Greg shares his story, experiences and impressions about life and work on the International Space Station.

## Gregory Chamitoff

### Astronaut, NASA

Dr. Gregory E. Chamitoff received his BS in Electrical Engineering from California Polytechnic State University in 1984, MS in Aeronautics from Caltech in 1985 and PhD in Aeronautics and Astronautics from MIT in 1992. In his doctoral thesis, he developed a new approach for robust intelligent flight control of hypersonic vehicles. From 1993 to 1995, Dr. Chamitoff was a visiting professor at the University of Sydney, Australia. He has published numerous papers on aircraft and spacecraft guidance and control, trajectory optimization, and Mars mission design. In 1995, Dr. Chamitoff joined Mission Operations at the Johnson Space Center, where he developed software applications for spacecraft attitude control monitoring, prediction, analysis, and maneuver optimization. Dr. Chamitoff was accepted into the class of 1998 for the astronaut program and qualified for flight assignment as Mission Specialist in 2000. He took a break from his flight duties to speak to the GALCIT 80<sup>th</sup> anniversary participants last September from the space station. Dr. Chamitoff has received numerous honors and awards including NASA Distinguished Service Medal, NASA Space Flight Medal and Cal Poly Honored Alumni Award.



**October 26, 2009**

**1 p.m., Beckman Institute Auditorium**

**California Institute of Technology**

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This series of lectures is given in memory of Professor Arthur Louis "Maj" Klein (1898–1983), a faculty member of GALCIT from 1929 until his death. In addition to his significant contributions as a teacher of aeronautical engineering, Klein was responsible for the engineering and building of the GALCIT 10-foot wind tunnel and related equipment.

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