ARES J. ROSAKIS

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In May 2009 Ares J. Rosakis, Theodore von Kármán Professor of Aeronautics and Professor of Mechanical Engineering, was appointed Chair of the Division of Engineering and Applied Science at Caltech. Previously Rosakis served as the fifth Director of the Graduate Aerospace Laboratories (GALCIT) from 2004-2009. As direction, he built on GALCIT's research strengths in the mechanics of solids, fluids and propulsion as well as emphasizing new research thrusts into space structures and bio-inspired design. Working closely with the Jet Propulsion Laboratory (JPL) he also introduced a new Master's and PhD program in Space Engineering.

Rosakis received his BA and MA ('78) degrees in Engineering Science from Oxford University and his Sc.M ('80) and Ph.D. ('82) degrees in solid mechanics from Brown University. He joined Caltech and GALCIT as an Assistant Professor in 1982.

He is the author of more than 260 works on quasi-static and dynamic failure of metals, composites, and interfaces with emphasis on the use of high speed visible and IR diagnostics and laser interferometry for the study of dynamic fracture and dynamic localization. Other interests include dynamic fragmentation; shear dominated intersonic rupture of inhomogeneous materials and composites, rupture mechanics of crustal earthquakes, shielding of spacecraft from hypervelocity micrometeoroid impact threats, the reliability of thin films and wafer level optical metrology. Most recently his research interests have focused on the mechanics of seismology, the physics of dynamic shear rupture and frictional sliding and on laboratory seismology. Professor Rosakis holds nine US patents on thin-film stress measurement and in situ wafer level metrology as well as on high speed infrared thermography.

In 2005, Rosakis was a Visiting Professor in the Department Terre Atmosphère-Océan, École Normale Supérieure Paris, France. In the same year, for his life-long contributions to the development and application of advanced methods for accurate measurement of transient, dynamic phenomena, he was the William M. Murray Medalist and Lecturer for the Society for Experimental Mechanics (SEM), a society that has honored him with many other recognitions including the 1996 B. L. Lazan, the 2003 Frocht, the 2007 Harting, and the 1992 Hetényi awards. In 2008 he was awarded the Astor Visiting Professorship by the University of Oxford and was asked to serve as a presidential nominee to the MIT Corporation Visiting Committee for the Department of Aeronautics and Astronautics. He is also a past Chairman of the Fracture & Failure Mechanics Committee of the Applied Mechanics Division (AMD) of the American Society of Mechanical Engineers (ASME), a Fellow of ASME, of SEM, and a Fellow of the New York Academy of Sciences. He is the Deputy Chair of the Executive Council of AMD of ASME, and the Advisory Council of JPL. In 2009, he was elected a Fellow of the American Academy of Arts and Sciences (AAAS). In 2010, he was honored to receive the Brown Engineering Alumni Medal and the Robert Henry Thurston Lecture Award (ASME). Most recently, in 2011, he received the A.C. Eringen Medal from the Society of Engineering Science (SES) and was elected Fellow of the National Academy of Engineering (NAE).