

UAHuntsville College of Engineering and Propulsion Research Center present

Dr. Ann Karagozian

Date & Time: March 27, 2012 at 11:00am

Location: Technology Hall Room S105

RESEARCH ACTIVITIES IN THE UCLA ENERGY AND PROPULSION RESEARCH LABORATORY

Professor Ann R. Karagozian (ark@seas.ucla.edu)
UCLA Mechanical & Aerospace Engineering Department



This talk will provide an overview of ongoing research projects in the UCLA Mechanical and Aerospace Engineering Department's Energy and Propulsion Research Laboratory. Our research is largely relevant to the understanding and control of phenomena in efficient energy generation and aerospace propulsion systems, and involves experimental, computational, and theoretical explorations of a variety of reactive and non-reactive flows. Projects involving actively controlled transverse jets and their instabilities, combustion of acoustically coupled liquid fuel droplets, and pulse detonation engines with magnetohydrodynamic thrust augmentation will be presented, with a focus on the underlying physical phenomena.

Bio:

Ann R. Karagozian has been a Professor in the Department of Mechanical and Aerospace Engineering at UCLA since 1982. Her research interests lie in fluid mechanics and combustion, with applications to improved engine efficiency, reduced emissions, alternative fuels, and advanced high speed air breathing and rocket propulsion systems. Professor Karagozian is the immediate Past Chair of the American Physical Society/Division of Fluid Dynamics and the immediate Past Chair of the UCLA Academic Senate. She was a member of the Air Force Scientific Advisory Board for nearly a dozen years, serving as Vice Chair (2005-2009) and chairing numerous technical studies, including one in 2010 dealing with Future Launch Vehicles for the U.S. Air Force. She is a Fellow of the American Institute of Aeronautics and Astronautics and of the American Physical Society, and has been an Associate Editor of the **AIAA Journal** and the **Journal of Propulsion and Power**. She received her B.S. in Engineering from UCLA in 1978 and her M.S. and Ph.D. in Mechanical Engineering from the California Institute of Technology in 1979 and 1982, respectively. More information on the Energy and Propulsion Research Laboratory may be found at <http://www.seas.ucla.edu/combustion/>.