



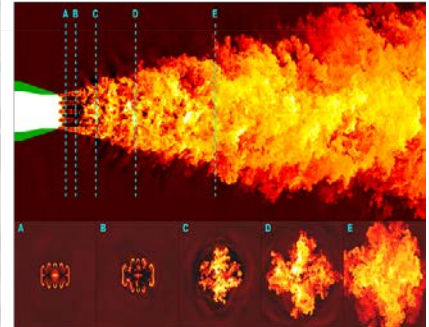
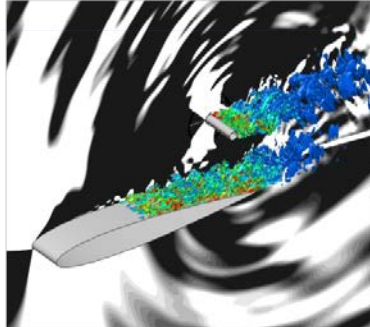
JOHNS HOPKINS
Center for Environmental
& Applied Fluid Mechanics

Weekly CEA FM Seminar: Spring 2013

Date: **Friday, April 26, 2013**
Time: 11:00 AM
Location: Gilman 50 (Marjorie M. Fisher Hall)
Speaker: **PROF. SANJIVA K. LELE** (Stanford University)
Title: ***"LARGE EDDY SIMULATIONS FOR AEROACOUSTICS"***

Abstract

Aeroacoustics concerns the generation and propagation of sound in fluid flows. Large eddy simulation provides an attractive approach to capture both the unsteady flow processes producing the sound and its propagation. We aim to highlight the technical challenges associated in doing so and the recent progress with examples from airfoil trailing-edge noise, wake-interaction noise and supersonic jet-noise. We stress that a suitable combination of accurate simulations of the non-linear unsteady flow and an acoustic propagation theory provide an effective tool not only for scientific investigations and share some highlights from this, but also for engineering design and analysis, in future.



Bio



Sanjiva Lele is a Professor in the Department of Mechanical Engineering and Department of Aeronautics and Astronautics at Stanford University. After his Bachelor's degree from IIT Kanpur in India he received PhD from Cornell University. He was affiliated with the NASA-Stanford Center for Turbulence Research from 1986-1989 and joined the faculty at Stanford in 1990. His research interests include diverse applications of fluid mechanics, turbulence, and aeroacoustics. He has received the F. N. Frenkeil award from APS-DFD, R.T Knapp award from ASME and the NSF-Presidential Young Investigator Award. He is a fellow of APS and served as an associate editor of the Journal of Fluid Mechanics from 1994-2004.