Sanjiva K. Lele

a) Professional Preparation

Indian Inst. of Technology, Kanpur, India	Mechanical Engineering	BS	1980
Cornell University, Ithaca, NY	Mechanical Engineering	Ph.D.	1985
Cornell University, Ithaca, NY	Post-doctoral Fellow		1985-1986
Center for Turbulence Research	Post-doctoral Fellow, Research Associate		1986-1989
NASA Ames Research Center, Moffett Field, CA			

b) Appointments

09/03 – current	Professor, Dept. of Aero/Astro and Mechanical Engineering, Stanford University
01/97 – 08/03	Assoc. Professor, Dept of Aero/Astro and Mechanical Engineering, Stanford Univ.
01/90 – 12/96	Asst. Professor, Dept of Aero/Astro and Mechanical Engineering, Stanford Univ
1989 – 1990	Senior Research Associate, Center for Turbulence Research, NASA Ames Research Center

Selected Honors

1986 F.N. Frankiel Award from the American Physical Society
1991 Presidential Young Investigator Award from the National Science Foundation
1999 R.T. Knapp Award with student Ted Manning from American Society of Mechanical Engineers, Fluids Engineering Division, "for the best paper dealing with results from analytical, numerical, or laboratory research that has been presented to the Fluids Engineering Division of the ASME within the last two years."
2001 Fellow of the American Physical Society "For his seminal contribution to the understanding of compressible turbulent flows and for his pioneering work in computational acoustics"
2011 Best student paper award at AIAA/CEAS Aeroacoustics conference with W. Wolf
2011 Best paper award at AIAA Fluid Dynamics Conference with B. Olson
2014 Best paper award at AIAA Aerospace Sciences Conference with D. Dawson
2016 AIAA Aeroacoustics Award from American Institute for Aeronautics and Astronautics

c) Products (Technical publications)

(i) five products most closely related to the proposed project

1. Ghate, A. S. and Lele, S. K. (2017),"Subfilter scale enrichment of wind farm LES using Fourier-Gabor modes," AIAA-2017-1164, 35rd Wind Energy Symposium, AIAA SciTech Symposium, Grapevine, TX.
2. Ghate, A. S. and Lele, S. K. (2017),"Sunfilter-scale enrichment of planetary boundary layer large eddy simulations using discrete Fourier-Gabor modes", J. Fluid Mech., Vol 819, pp 494-535.
3. Ghate, A. S. and Lele, S. K. (2016),"Multi-scale Kimenatic Simulations of the Stratified Surface Layer and Interactions with Wind Turbine Arrays," AIAA-2016-1990, 34rd Wind Energy Symposium, AIAA SciTech Symposium, San Diego, CA.
4. Kocheemoolayil, J. G. and Lele, S. K. (2016),"Large Eddy Simulation of Airfoil Self-Noise at High Reynolds Number," AIAA-2016-2919, AIAA/CEAS Aeroacoustics Conference, Lyon
5. Ghate, A. S. and Lele, S. K. (2015),"A Modeling Framework for Wind Farm Analysis: Wind Turbine Wake Interactions," AIAA-2015-0725, 33rd Wind Energy Symposium, 53rd AIAA Aerospace Science Meeting, FL.

(II) UP TO FIVE OTHER SIGNIFICANT PRODUCTS

6. Lele, S. K. and Nichols, J. W. (2014),"A Second Golden Age of Aeroacoustics ?", Phil. Trans. Royal Society Ser. A, (2014) **372**: 20130321. http://dx.doi.org/10.1098/rsta.2013.0321
7. Olson, B. J. and Lele, S. K. (2013)," A mechanism for unsteady separation in over-expanded nozzle flow", Phys. Fluids., Vol. 25, Issue 11, 110809.
8. M. Wang, J. B. Freund and S. K. Lele "Computational Prediction of Flow Generated Sound," *Annual Review of Fluid Mechanics*, Vol. 38, pp. 483-512, 2006.

9. T. Colonius, and Lele, S. K. "Computational Aeroacoustics: a review of progress in nonlinear problems of sound generation," *Progress in Aerospace Sciences*, 2004, Vol 40, part 6, p. 345-416.
10. S. K. Lele, "Direct Numerical Simulation of Compressible Turbulent Flows: Fundamentals and Applications," chapter in *Turbulence and Combustion Modeling*, H. Alfredsson, A. Johansson, D. Henningson and A. Hanifi, editors, Kluwer Academic Publishing, 1999, pp. 421-488.

d) Synergistic Activities

1. Prof. Lele has served as an Associate Editor for the Journal of Fluid Mechanics from 1994-2003. In this capacity he was fully responsible for the review process for the manuscripts submitted to him.
2. Prof. Lele was elected to the Executive Committee of the American Physical Society, Division of Fluid Dynamics, and served on this committee during 2010-2014 and 1998-2001. His responsibilities included planning and review of all activities supported by the division. He has served on other committees for APS and continues to serve APS-DFD. During 2014 he was the program chair for APS-DFD Annual Meeting and Conference held in Nov. 2014 in San Francisco. He served as a member of the Aeroacoustics Technical Committee of the American Institute of Aeronautics and Astronautics during 2003-2011 and during 2007-2011 served as the chair of its Education sub-committee. He is currently an Associate Fellow of AIAA.
3. Prof. Lele has served the scientific and engineering community outside of Stanford University. He has given numerous invited talks and taught invited short courses. He has served on numerous Scientific Committees for organizing conferences, review panels for research proposals, and served as chair at numerous conferences.

e) Collaborators & Other Affiliations

Collaborators and Co-Editors (5):
N. A. Adams (Technical University of Munich); T. Colonius (California Institute of Technology); B. Olson (Lawrence Livermore National Lab); V. Tritschler (Technical University of Munich); K. Viswanathan (Boeing Company)

Graduate Advisors and Postdoctoral Sponsors (4):
PhD Advisor: Prof. Sidney Leibovich (Cornell University); *Postdoc Advisor /Mentors:* Prof. John Lumley (Cornell University); Prof. Parviz Moin (Stanford University); Dr. Alan Wray (NASA Ames Research Center)

Thesis Advisor and Postgraduate Scholar Sponsor (42)
Current Graduate Students, Stanford University: A. Inamdar, A. Ghate, A. Subramaniam, M. L. Wong, J. West
PhD students graduated earlier than 5 years: M. Barone (SNL); R. Bhaskaran (GE); L. Cheung; S. Collis (SNL); T. Colonius (Caltech); J. Freund (Univ. Illinois); S. Lee (Korea Supercomputing); G. Lu (Quantum); K. Lucas (unknown); C. Lui (Rose Hulman); B. Mitchell (GE); S. Nagarajan (Wall Steet); Y. Peet (Arizona State); P. Ray (Imperial College); S. Rennich (Nvidia); T. Suzuki (Boeing); Z. Xiong (Chevron);
PhD students: Zach Vane (Sandia-Livermore), J. Kocheemoolayil (NASA), Ankit Bhagatwala (LBNL); David Dawson (LLNL); Kenneth Franko (SNL); Brandon Morgan (LLNL); Alex Naiman (Startup in Silicon Valley); Britton Olson (LLNL); Jaiyoung Ryu (UC Berkeley); Santhosh Shankar (Shell Research); Arjun Sharma (U. T. Austin); William Wolf (University of Campinas); Chris Yu (Specialized Bicycle Components);
Current Post-Doctoral Fellow, Stanford University: Niranjan Ghaisas
Post-doctoral fellows supervised prior to 5 years: B. Fiorina (Univ Paris); S. Hahn (unknown); M. Jacob (Univ. Lyon); S. Mendez (Univ. Marie Curie); J-H Seo (Johns Hopkins); F. Bastin (unknown)
Post-doctoral fellows supervised in last 5 years and their current affiliation: Ivan Beremjo-Moreno (University of Southern California); Eric Johnsen (University of Michigan); Soshi Kawai (Tohuku University); Johan Larsson (University of Maryland); Joe Nichols (University of Minnesota); Carlo Scalo (Purdue University)