
MECHANICS RESEARCH COMMUNICATIONS

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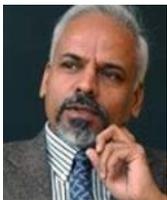
Executive Vice Provost – Engineering & Applied Sciences
Polytechnical School of Engineering

October 21, 2015
2:30 p.m. – 4:00 p.m.

GITC 1400
New Jersey Institute of Technology, Newark, NJ
Webcast URL: <http://live.njvid.net/njit>

Turbulent Convection at High Rayleigh Numbers

I will summarize my perspective on the problem of turbulent convection at very high Rayleigh numbers, by drawing on the work in my own group and elsewhere, and by considering the entire range of experimental, theoretical and computational work available. I will dwell on questions that are still poorly understood. In particular, I will consider the problem of turbulent convection in the Sun, paying some attention to the helioseismology results, and by drawing on the paper in *Annu. Rev. Fluid Mech.* **48**, 191 (2016).



Katepalli R. Sreenivasan is Executive Vice Provost for Engineering and Applied Sciences and Dean of the Polytechnic School of Engineering, with faculty appointments in the Dept. of Physics, Dept. of Mechanical Engineering and the Courant Institute of Mathematical Sciences. Dr. Sreenivasan came to NYU from the International Centre for Theoretical Physics (Trieste, Italy) where he was Director, and the University of Maryland, where he was Distinguished University Professor and Professor of Physics and Engineering, and Director of the Institute for Physical Science and Technology. Dr. Sreenivasan is a member of the *National Academy of Sciences* and the *National Academy of Engineering*, and is a *Fellow of the American Academy of Arts and Sciences* Working closely with the senior leadership of NYU and NYU Abu Dhabi, he plays a significant role in the planning and development of NYU as a Global Network University. An active researcher, Dr. Sreenivasan's research is in the areas of turbulence, complex fluids, cryogenic helium, and nonlinear dynamics.