Abstract: The study of turbulence is of immense scientific interest to engineers, physicists and mathematicians because it plays an important role across a plethora of known phenomena. This talk will be on the broad area of turbulent mixing, with special focus on passive scalar mixing. It will not assume specialized knowledge of turbulence.

Bio: Dr. Sreenivasan is the Eugene Kleiner Professor for Innovation in Mechanical Engineering at Tandon. He holds professorships in the Department of Physics and at the Courant Institute of Mathematical Sciences. Sreenivasan arrived at NYU after tenures at Yale, where he spent more than 20 years; the University of Maryland, where he led the Institute for Physical Science and Technology; and the International Centre for Theoretical Physics in Trieste, Italy, where he served as director and held the Abdus Salam Professorship. He has also been a visiting professor at Caltech, Cambridge University, the Institute for Advanced Study at Princeton, and Newton Institute in Cambridge.

His research interests include fluid mechanics and turbulence, nonlinear and nonequilibrium phenomena, and cryogenic helium. He has been elected to the U.S. National Academy of Sciences, U.S. National Academy of Engineering, American Academy of Arts and Sciences, Indian Academy of Sciences, Indian National Science Academy, Academy of Sciences for the Developing World (TWAS), Accademia dei Lincei, and African Academy of Sciences, among other such groups, and his many honors include the Guggenheim Fellowship, Otto Laporte Memorial Award and Dwight Nicholson Medal of the American Physical Society, UNESCO Medal for Promoting International Scientific Cooperation and World Peace from the World Heritage Centre, Award for Scientific Cooperation of the American Association for the Advancement of Science, etc.