## DEPARTMENT OF MATHEMATICS CENTER FOR APPLIED MATH COLLOQUIUM

## Random Walks & Diffusions in a Random Medium

presented by Abel Laureate

## Srinivasa Varadhan

Courant Institute of Mathematical Sciences, NYU

With opening remarks by CLAS Interim Dean Joseph Glover

Dr. Varadhan's lecture will provide a survey of random walks and diffusions in a random medium, focusing on long term behavior and discussing laws of large numbers, central limit theorems, and large deviation estimates. He will also explore connections with homogenization of Hamilton-Jacobi-Bellman equations.

Professor Srinivasa Varadhan is one of the world's most eminent probabilists. He hails from Madras, India where he did his BA and MA. After receiving his PhD from the Indian Statistical Institute in Calcutta in 1963, he moved to the Courant Institute where he has been ever since, starting as a post-doc and rising to his present position as Frank J. Gould Professor. He also served as Director at Courant during 1980-84. Over the past four decades, he has done pioneering work on various aspects of the theory of probability and is most known for his contributions to large deviations. He has received numerous honors and recognitions throughout his illustrious career. The American Mathematical Society awarded him the Birkhoff Prize in 1994 and the Steele Prize in 1996. He was elected Member of the American Academy of Arts and Sciences (1988), Member of the National Academy of Sciences (1995) and Fellow of The Royal Society (1998). His most recent award is the Abel Prize (2007), which is equivalent to the Nobel Prize, and recognizes his life-long ground breaking

