

NATIONAL INSTITUTES PUBLIC LECTURE SERIES 2005

# ECONOPHYSICS: Can Physicists Help Understand Economic Fluctuations?

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Wednesday 16 November, 6.15pm

Visions Theatre, National Museum of Australia, Acton Peninsula

This lecture is free and open to the public. No bookings required.

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How can we better understand economic fluctuations? The answer may lie in a new approach where physicists and economists work together, uncovering new empirical laws with concepts drawn from both sciences.

This lecture will outline recent developments in econophysics, before considering the problem of rare events in stock market price dynamics. Dr Stanley will argue that even extremely large movements in stock market activity may not be anomalies, instead conforming to empirical laws that will help us understand how, why and when they will occur.



Dr Gene Stanley is a Professor of Physics and University Professor at the Boston University. He is known for his commitment to international education and cooperation, playing a pivotal role in various international conferences and co-founding a series of NATO Advanced Study Institutes in interdisciplinary physics.

Four of Professor Stanley's articles have been among the most cited in the year they were published, and he has received a long list of international awards, including the 2004 Boltzmann Medal in Statistical Physics. Also in 2004 he was elected to the National Academy of Sciences, and he received the Nicholson Medal of the American Physical Society in part for his activities in trying to understand why there are so few women in physics. Professor Stanley is co-author, with Professor R. Mantegna, of *Introduction to Econophysics: Correlations and Complexity in Finance* (Cambridge University Press, Cambridge, 2000).

