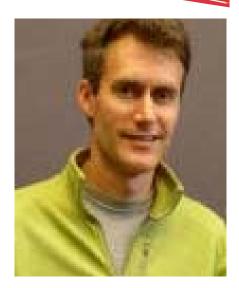
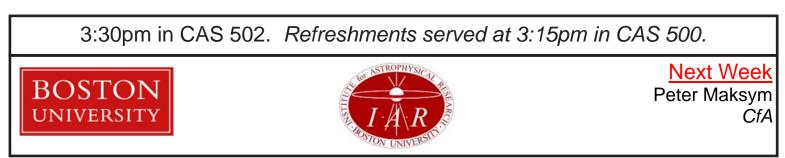
Gregory Laughlin

Yale

Poincaré's Legacy: Predictions on Time Scales Ranging from Milliseconds to Billions of Years



I will discuss and connect two long-standing, and at first glance entirely unrelated, problems of prediction: (1) the long-term dynamical stability of the Solar System, and (2) price movements and volatility in financial markets. These phenomena have radically different governing mechanisms, and their characteristic time scales are vastly different, but they share a key common basis in the random walk, and the study of both can be traced directly back to the work of Henri Poincaré.



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