Scaling phenomena: Time scales



1/f Noise in Human Cognition

D. L. Gilden,* T. Thornton, M. W. Mallon

When a person attempts to produce from memory a given spatial or temporal interval, there is inevitably some error associated with the estimate. The time course of this error was measured in a series of experiments where subjects repeatedly attempted to replicate given target intervals. Sequences of the errors in both spatial and temporal replications were found to fluctuate as 1/f noises. 1/f noise is encountered in a wide variety of physical systems and is theorized to be a characteristic signature of complexity.

SCIENCE • VOL. 267 • 24 MARCH 1995



Entropy

