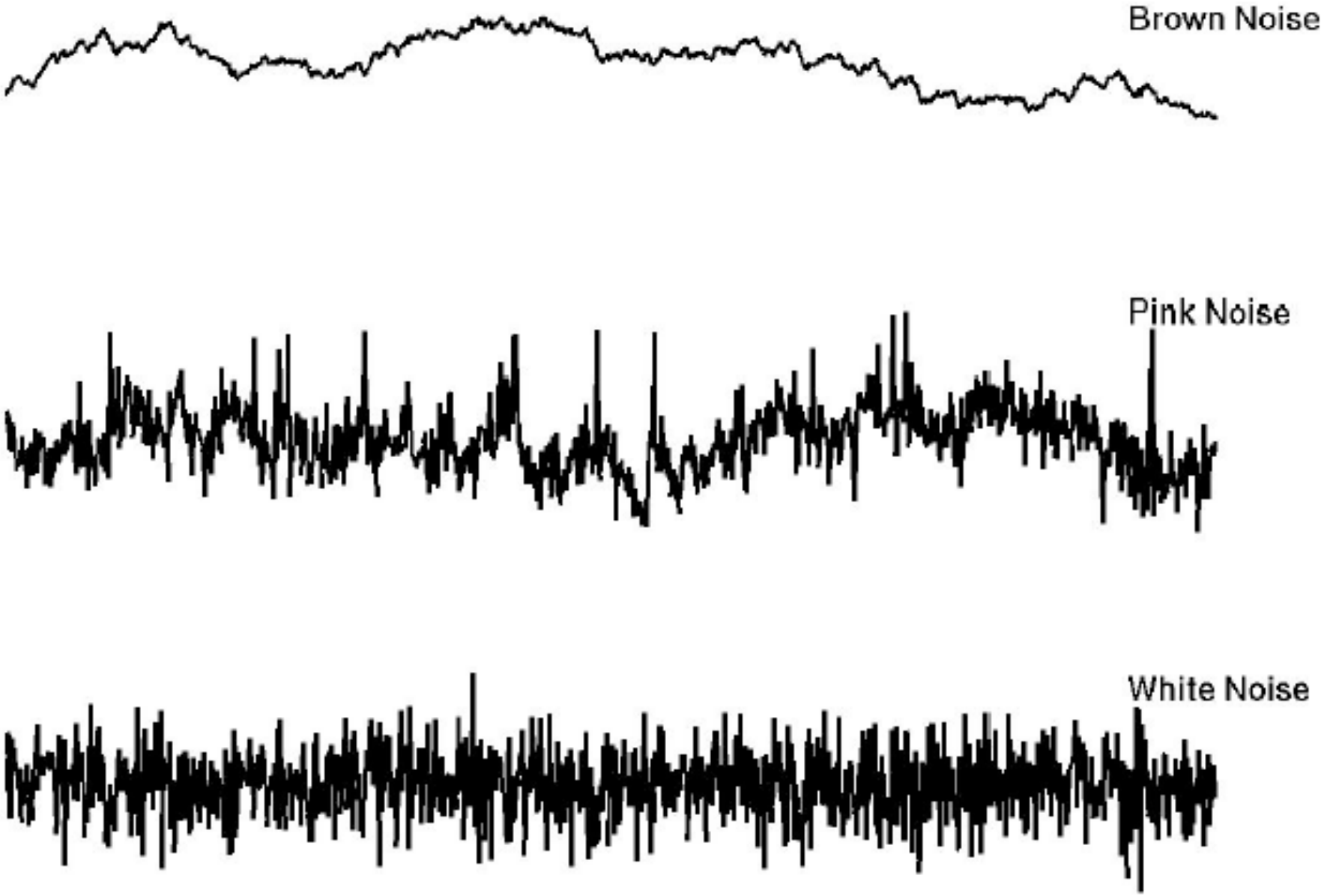
IN·NOMINE·PATRIS

Radboud University Nijmegen


Brown Noise
Pink Noise
White Noise

Gaussian, random processes

Brownian motion, or random walk processes

Highly correlated, constrained

Not correlated, unconstrained

Between order and random… Chaos?

Associated with Self Organizing Complex Systems

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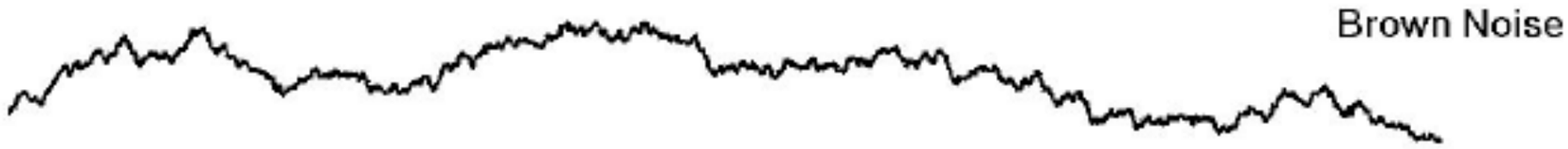
Idiographic Science

Idiographic Science

Brownian motion, or random walk processes

Highly correlated, constrained



Between order and random… Chaos?

Associated with Self Organizing Complex Systems

Gaussian, random processes

Not correlated, unconstrained

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Fundamental problems for main-stream Social & Life Sciences

Time series of observables of living systems (e.g. human physiology, performance and self-reports of well-being)

- Often no *stationarity* of central moments
- Often no characteristic scale of fluctuation (*homogeneity*)
- No *memoryless-ness* property (nontrivial after-effects of interactions)
- *Anomalous diffusion* rather than typical diffusion
- *Ageing* (losing identity over time)
- *Scaling* (1/f noise, multifractal spectrum, multiplicative cascades)

>> *non-ergodic, non-equilibrium, non-linear phenomena*

Most common model in Social Sciences: *General Linear Model*

A Manifesto on Psychology as Idiographic Science: Bringing the Person Back Into Scientific Psychology, This Time Forever

Peter C. M. Molenaar
Department of Psychology
University of Amsterdam

Special Section On A Biological Window on Psychological Development. Edited by Clancy Blair & Jean-Louise Gariepy

Peter C.M. Molenaar
Department of Human Development and Family Studies
The Pennsylvania State University
Henderson S113-B
University Park, PA 16802
E-mail: pxm21@psu.edu

On the Implications of the Classical Ergodic Theorems: Analysis of Developmental Processes has to Focus on Intra-Individual Variation