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	Descrizione fisica	1 online resource (XX, 203 p. 1 illus.)
	Collana	Understanding Complex Systems, , 1860-0840
	Disciplina	519.5
	Soggetti	Mathematical physics Statistics Dynamics Nonlinear theories System theory Theoretical, Mathematical and Computational Physics Statistical Theory and Methods Applied Dynamical Systems Complex Systems
	Lingua di pubblicazione	Inglese
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	Livello bibliografico	Monografia
	Note generali	Includes index.
	Nota di contenuto	Introduction -- From lognormal to power -- The Poisson law -- Framework -- Threshold analysis -- Hazard rates -- Order statistics -- Exponent estimation -- Socioeconomic analysis -- Fractality -- Sums -- Dynamics -- Limit laws -- First digits -- Back to lognormal -- Conclusion -- Appendix.
	Sommario/riassunto	This monograph is a comprehensive and cohesive exposition of power-law statistics. Following a bottom-up construction from a foundational bedrock – the power Poisson process – this monograph presents a unified study of an assortment of power-law statistics including: Pareto laws, Zipf laws, Weibull and Fréchet laws, power Lorenz curves, Lévy laws, power Newcomb-Benford laws, sub-diffusion and super-diffusion, and 1/f and flicker noises. The bedrock power Poisson process, as well as the assortment of power-law statistics, are investigated via diverse perspectives: structural, stochastic, fractal, dynamical, and socioeconomic. This monograph is poised to serve

researchers and practitioners – from various fields of science and engineering – that are engaged in analyses of power-law statistics.