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Sommario/riassunto

Chaos: from simple models to complex systems aims to guide science and engineering students through chaos and nonlinear dynamics from classical examples to the most recent fields of research. The first part, intended for undergraduate and graduate students, is a gentle and self-contained introduction to the concepts and main tools for the characterization of deterministic chaotic systems, with emphasis to statistical approaches. The second part can be used as a reference by researchers as it focuses on more advanced topics including the characterization of chaos with tools of information