

<<信息、随机及不完整性>>

图书基本信息

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## 内容概要

This book is an essential companion to Chaitin's monograph ALGORITHMIC INFORMATION THEORY and includes in easily accessible form all the main ideas of the creator and principal architect of algorithmic information theory. This expanded second edition has added thirteen abstracts, a 1988 SCIENTIFIC AMERICAN article, a transcript of a EUROPALIA 89 lecture, an essay on biology, and an extensive bibliography. Its larger format makes it easier to read. Chaitin's ideas are a fundamental extension of those of Godel and Turing and have exploded some basic assumptions of mathematics and thrown new light on the scientific method, epistemology, probability theory, and of course computer science and information theory. "One will find in [Information, Randomness & Incompleteness] all kinds of "articles which are popularizations or epistemological reflections, and presentations which permit one to rapidly obtain a precise idea of the subject and of some of its applications (in particular in the biological domain). Very complete, it is recommended to anyone who is interested in algorithmic information theory." Jean-Paul Delahaye in LA RECHERCHE "No one, but no one, is exploring to greater depths the amazing insights and theorems that flow from Godel's work on undecidability than Gregory Chaitin. His exciting discoveries and speculations invade such areas as logic, induction, simplicity, the philosophy of mathematics and science, randomness, proof theory, chaos, information theory, computer complexity, diophantine analysis, and even the origin and evolution of life." Martin Gardner "Gregory Chaitin...has proved the ultimate in undecidability theorems that the logical structure of arithmetic can be random... The assumption that the formal structure of arithmetic is precise and regular turns out to have been a time-bomb, and Chaitin has just pushed the detonator." Ian Stewart in NATURE

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作者简介

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