Thinking about

Gödel and Turing

Essays on Complexity, 1970 – 2007

Gregory J Chaitin

With a Foreword by
Paul Davies

World Scientific

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Essays on Complexity, 1970 – 2007

by **Gregory J Chaitin** *(IBM T J Watson Research Center, USA)*

with a foreword by Paul Davies

Dr Gregory Chaitin, one of the world's leading mathematicians, is best known for his discovery of the remarkable Ω number, a concrete example of irreducible complexity in pure mathematics which shows that mathematics is infinitely complex. In this volume, Chaitin discusses the evolution of these ideas, tracing them back to Leibniz and Borel as well as Gödel and Turing.

RANDOMNESS AND COMPLEXITY, FROM LEIBNIZ TO CHAITIN

edited by **Cristian S Calude** *(University of Auckland, New Zealand)*

The book is a collection of papers written by a selection of eminent authors from around the world in honour of Gregory Chaitin's 60th birthday. The technical contributions, philosophical papers and essays contained in this unique volume includes:

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"The magnificent work of Kurt Göedel and Alan Turing on the limits of knowledge and computation has been an inspiration to a great many people. I have devoted my life to trying to advance an infinitesimal distance on this thorny path by utilizing the concept of complexity, which can be traced back to Leibniz. In these two volumes Cris Calude and I offer to the readers a summary and overview of these attempts of mine, plus some reactions from the community, in the hope that this will encourage further work on these extremely difficult and fundamental questions."

Greg Chaitin, September 2007

Randomness
and
Complexity

From Leibniz to Chaitin

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Cristian S Calude
editor

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