# Einladung zur Buchpräsentation

Die Fakultät für Physik der Universität Wien und das Erwin Schrödinger Institut laden herzlich ein zur Präsentation von folgenden Büchern:

Gregory J. Chaitin

## THINKING ABOUT GÖDEL AND TURING

### Essays on Complexity, 1970-2007

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# Cristian S. Calude RANDOMNESS AND COMPLEXITY, FROM LEIBNIZ TO CHAITIN

Donnerstag, 8. November 2007 um 17:00 Uhr

Großer Hörsaal der Materialphysik

Boltzmanngasse 5, 1090 Wien

Wir freuen uns besonders über die Anwesenheit der beiden Autoren *Gregory J. Chaitin* und *Cristian S. Calude*.

Karl Sigmund wird einige einleitende Worte sprechen.

Ein Büchertisch wird von der von Shakespeare Company bereit gestellt. Im Anschluss an die Präsentation werden kleine Erfrischungen gereicht.

#### Programm:

17:00 Uhr:	Anton Zeilinger: Begrüßung
17:10 Uhr:	Karl Sigmund: einleitende Worte
17:30 Uhr:	Cristian Calude: kurze Präsentation der Bücher
18:00 Uhr:	Gregory Chaitin: abschließende Worte

## Gregory J. Chaitin

# THINKING ABOUT GÖDEL AND TURING Essays on Complexity, 1970-2007

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#### 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  $\Omega$  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.

#### About the Author

Gregory Chaitin is a member of the Physical Sciences Department at the IBM Thomas J. Watson Research Center in Yorktown Heights, New York. He is also an honorary visiting professor in the Theoretical Computer Science Group at the University of Auckland (New Zealand), and an honorary professor at the University of Buenos Aires (Argentina).

Furthermore, Chaitin is a member of the *Académie Internationale de Philosophie des Sciences* (Belgium), a corresponding member of the *Academia Brasileira de Filosofia* (Rio de Janeiro), on the scientific advisory panel of the Foundational Questions in Physics & Cosmology Institute (FQXi), the honorary president of the scientific committee of the *Instituto de Sistemas Complejos de Valparaíso* (Chile), and a permanent member of the Rutgers University Center for Discrete Mathematics & Theoretical Computer Science (DIMACS). He has an honorary doctorate from the University of Maine.

## Cristian S. Calude

## RANDOMNESS AND COMPLEXITY, FROM LEIBNIZ TO CHAITIN

This 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. This is a unique volume including technical contributions, philosophical papers and essays. *From Leibniz to Chaitin* will inform and give pleasure to many diverse readerships. Logicians, philosophers and programmers, teachers and students, specialists and amateurs will find much to learn, to conjure with and, yes, perhaps to be inflamed by. Such is as should be, given the nature of Greg Chaitin's magnificent obsession, technical prowess, personal generosity and willingness to court controversy. It is hard to imagine a better sexagecimal birthday present for a scientist who perfectly exemplifies his own maxim.

#### About the Author:

Cristian S. Calude is Chair Professor and Director of the Centre for Discrete Mathematics and Theoretical Computer Science, The University of Auckland, New Zealand. Author or co-author of 188 papers in refereed journals and proceedings, author or co-author of 13 books, co-editor of 21 books and 25 special issues of journals.

Latest books: "Computing with Cells and Atoms" (with G. Paun) published by Francis & Taylor, London, 2001 and the second expanded edition of "Information and Randomness", Springer, Heidelberg, 2002 (first published in 1994). Cited in more than 1500 papers and books by more than 150 authors.

Featured in the "New Scientist", "Pour la Science" and "La Recherche". Editor-in-chief of J.UCS, editor of seven other international journals, and member of the Advisory Board of the EATCS Book Series (Springer). Research

interests: Algorithmic information theory, theoretical physics, and mathematical logic.

#### **Further Information:**

BBC-Production "Dangerous Knowledge"

- Click here to see streaming digital video of Dangerous Knowledge <http://video.google.com/videoplay?docid=-3503877302082311448>
- Click here to see post production script of Dangerous Knowledge <http://www.i330.co.uk/POSTPRODSCRIPTFINAL.doc>