points on faces of a rational polyhedral cone; **Z. Xu**, An explicit formulation for two dimensional vector partition functions; **M. Beck**, **B. Nill**, **B. Reznick**, **C. Savage**, **I. Soprunov**, and **Z. Xu**, Let me tell you my favorite lattice-point problem ….

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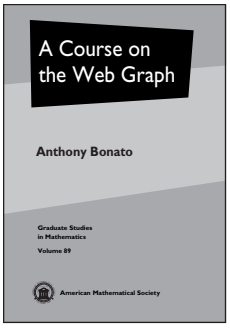

A Course on the Web Graph

Anthony Bonato, *Wilfrid Laurier University, Waterloo, ON, Canada*

A Course on the Web Graph provides a comprehensive introduction to state-of-the-art research on the applications of graph theory to real-world networks such as the web graph. It is the first mathematically rigorous textbook discussing both models of the web graph and algorithms for searching the web.

After introducing key tools required for the study of web graph mathematics, an overview is given of the most widely studied models for the web graph. A discussion of popular web search algorithms, e.g. PageRank, is followed by additional topics, such as applications of infinite graph theory to the web graph, spectral properties of power law graphs, domination in the web graph, and the spread of viruses in networks.

The book is based on a graduate course taught at the AARMS 2006 Summer School at Dalhousie University. As such it is self-contained and includes over 100 exercises. The reader of the book will gain a working knowledge of current research in graph theory and its modern applications. In addition, the reader will learn first-hand about models of the web, and the mathematics underlying modern search engines.

Contents: Graphs and probability; The web graph; Random graphs; Models for the web graph; Searching the web; The infinite web; New directions in internet mathematics; Bibliography; Index.

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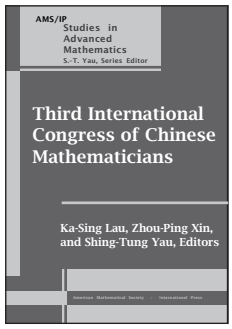
General and Interdisciplinary



Third International Congress of Chinese Mathematicians

Ka-Sing Lau and **Zhou-Ping Xin**, *The Chinese University of Hong Kong, China*, and **Shing-Tung Yau**, *Harvard University, Cambridge, MA*, Editors

These volumes consist of the proceedings of the Third International Congress of Chinese Mathematicians, held at the Chinese University of Hong Kong in December 2004. The congress brought together eminent Chinese and overseas mathematicians to discuss the latest developments in pure and applied mathematics.

This two-part proceedings contains the contents of lectures given by the plenary speakers and the invited speakers—the major portion comprising new results—together with some expository and survey articles. Eleven major topics are treated: algebra, number theory and cryptography; algebraic geometry and algebraic topology; geometric analysis; complex analysis and complex geometry; harmonic analysis and functional analysis; applied mathematics; dynamical systems, fractals and wavelets; numerical analysis; PDE; probability, statistics, and financial mathematics; and education.

Titles in this series are co-published with International Press, Cambridge, MA.

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