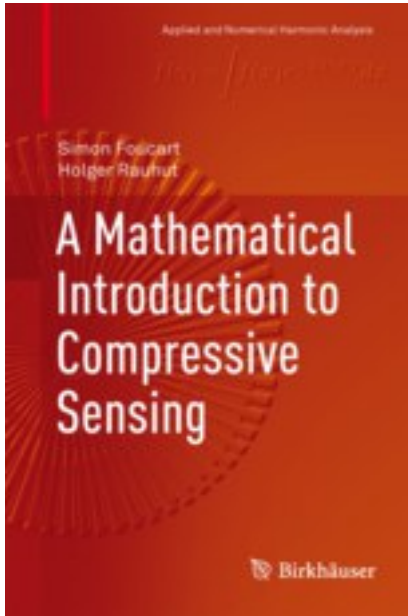


A Mathematical Introduction to Compressive Sensing



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The first textbook completely devoted to the topic of compressive sensing

Comprehensive treatment of the subject, including background material from probability theory, detailed proofs of the main theorems, and an outline of possible applications

Numerous exercises designed to help students understand the material

An extensive bibliography with over 500 references that guide researchers through the literature

At the intersection of mathematics, engineering, and computer science sits the thriving field of compressive sensing. Based on the premise that data acquisition and compression can be performed simultaneously, compressive sensing finds applications in imaging, signal processing, and many other domains. In the areas of applied mathematics, electrical engineering, and theoretical computer science, an explosion of research activity has already followed the theoretical results that highlighted the efficiency of the basic principles. The elegant ideas behind these principles are also of independent interest to pure mathematicians.

A Mathematical Introduction to Compressive Sensing gives a detailed account of the core theory upon which the field is build. Key features include:

- The first textbook completely devoted to the topic of compressive sensing
- Comprehensive treatment of the subject, including background material from probability theory, detailed proofs of the main theorems, and an outline of possible applications
- Numerous exercises designed to help students understand the material
- An extensive bibliography with over 500 references that guide researchers through the literature

With only moderate prerequisites, A Mathematical Introduction to Compressive Sensing is an excellent textbook for graduate courses in mathematics, engineering, and computer science. It also serves as a reliable resource for practitioners and researchers in these disciplines who want to acquire a careful understanding of the subject.

作者介绍:

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