
This comprehensive and engaging textbook introduces the basic principles and techniques of signal processing, from the fundamental ideas of signals and systems theory to real-world applications.

- Introduces students to the powerful foundations of modern signal processing, including the basic geometry of Hilbert space, the mathematics of Fourier transforms, and essentials of sampling, interpolation, approximation, and compression.
- Discusses issues in real-world use of these tools such as effects of truncation and quantization, limitations on localization, and computational costs.
- Includes over 160 homework problems and over 220 worked examples, specifically designed to test and expand students' understanding of the fundamentals of signal processing.
- Accompanied by extensive online materials designed to aid learning, including Mathematica® resources and interactive demonstrations.

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