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Nota di contenuto	Time-Frequency Analysis; Contents; Preface; First part. Fundamental Concepts and Methods; Chapter 1. Time-Frequency Energy Distributions: An Introduction; 1.1. Introduction; 1.2. Atoms; 1.3. Energy; 1.3.1. Distributions; 1.3.2. Devices; 1.3.3. Classes; 1.4. Correlations; 1.5. Probabilities; 1.6. Mechanics; 1.7. Measurements; 1.8. Geometries; 1.9. Conclusion; 1.10. Bibliography; Chapter 2. Instantaneous Frequency of a Signal; 2.1. Introduction; 2.2. Intuitive approaches; 2.3. Mathematical definitions; 2.3.1. Ambiguity of the problem; 2.3.2. Analytic signal and Hilbert transform 2.3.3. Application to the definition of instantaneous frequency2.3.4. Instantaneous methods; 2.4. Critical comparison of the different definitions; 2.4.1. Interest of linear filtering; 2.4.2. Bounds of the

quantities introduced; 2.4.3. Instantaneous nature; 2.4.4. Interpretation by the average; 2.5. Canonical pairs; 2.6. Phase signals; 2.6.1. Blaschke factors; 2.6.2. Oscillatory singularities; 2.7. Asymptotic phase signals; 2.7.1. Parabolic chirp; 2.7.2. Cubic chirp; 2.8. Conclusions; 2.9. Bibliography; Chapter 3. Linear Time-Frequency Analysis I: Fourier-Type Representations
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Sommario/riassunto

Covering a period of about 25 years, during which time-frequency has undergone significant developments, this book is principally addressed to researchers and engineers interested in non-stationary signal analysis and processing. It is written by recognized experts in the field.
