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Altri autori (Persone)	KahrsMark BrandenburgKarlheinz <1954->
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Nota di bibliografia	Includes bibliographical references (p. [467]-534) and index.
Nota di contenuto	Audio Quality Determination Based on Perceptual Measurement Techniques -- Perceptual Coding of High Quality Digital Audio -- Reverberation Algorithms -- Digital Audio Restoration -- Digital Audio System Architecture -- Signal Processing for Hearing Aids -- Time and Pitch Scale Modification of Audio Signals -- Wavetable Sampling Synthesis -- Audio Signal Processing Based on Sinusoidal Analysis/Synthesis -- Principles of Digital Waveguide Models of Musical Instruments.
Sommario/riassunto	Karlheinz Brandenburg and Mark Kahrs With the advent of multimedia, digital signal processing (DSP) of sound has emerged from the shadow of bandwidth limited speech processing. Today, the main applications of audio DSP are high quality audio coding and the digital generation and manipulation of music signals. They share common research topics including perceptual measurement techniques and analysis/synthesis methods. Smaller but nonetheless very important topics are hearing

aids using signal processing technology and hardware architectures for digital signal processing of audio. In all these areas the last decade has seen a significant amount of application oriented research. The topics covered here coincide with the topics covered in the biannual workshop on "Applications of Signal Processing to Audio and Acoustics". This event is sponsored by the IEEE Signal Processing Society (Technical Committee on Audio and Electroacoustics) and takes place at Mohonk Mountain House in New Paltz, New York. A short overview of each chapter will illustrate the wide variety of technical material presented in the chapters of this book. John Beerends: Perceptual Measurement Techniques. The advent of perceptual measurement techniques is a byproduct of the advent of digital coding for both speech and high quality audio signals. Traditional measurement schemes are bad estimates for the subjective quality after digital coding/decoding. Listening tests are subject to statistical uncertainties and the basic question of repeatability in a different environment.
