Record Nr. UNINA9910792487103321 Autore Zwicker Eberhard Titolo Psychoacoustics [[electronic resource]]: Facts and Models // by Eberhard Zwicker, Hugo Fastl Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 1999 **ISBN** 3-662-09562-9 Edizione [2nd ed. 1999.] Descrizione fisica 1 online resource (XII, 417 p.) Collana Springer Series in Information Sciences, , 0720-678X;; 22 Disciplina 612.85 Soggetti Acoustics **Biophysics** Biological physics Electrical engineering Coding theory Information theory Biological and Medical Physics, Biophysics Communications Engineering, Networks Coding and Information Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto 1. Stimuli and Procedures -- 2. Hearing Area -- 3. Information Processing in the Auditory System -- 4. Masking -- 5. Pitch and Pitch Strength -- 6. Critical Bands and Excitation -- 7. Just-Noticeable Sound Changes -- 8. Loudness -- 9. Sharpness and Sensory Pleasantness --10. Fluctuation Strength -- 11. Roughness -- 12. Subjective Duration -- 13. Rhythm -- 14. The Ear's Own Nonlinear Distortion -- 15. Binaural Hearing -- 16. Examples of Application -- Literature. Sommario/riassunto Psychoacoustics - Facts and Models represents a comprehensive collection of data describing the processing of sound by the human hearing system. It includes quantitative relations between sound stimuli and auditory perception in terms of hearing sensations. In addition, quantitative psychoacoustic models of hearing sensations are given. The monograph contains a unique collection of data on the human hearing system as a receiver of acoustic information as well as many

examples of the practical application of the results of basic research in fields such as audiology, noise evaluation, and sound engineering. Many helpful hints for the solution of practical problems will be of particular benefit to engineers, and the book as a whole should serve as an important benchmark in the field of psychoacoustics. The treatment given in this second edition has been thoroughly updated with recent results.