Record Nr. UNINA9910299569203321 Autore Köster Friedemann Titolo Multidimensional Analysis of Conversational Telephone Speech / / by Friedemann Köster Singapore:,: Springer Singapore:,: Imprint: Springer,, 2018 Pubbl/distr/stampa 981-10-5224-7 **ISBN** Edizione [1st ed. 2018.] 1 online resource (XIII, 184 p. 60 illus.) Descrizione fisica Collana T-Labs Series in Telecommunication Services, , 2192-2810 Disciplina 006.35 Soggetti Signal processing Image processing Speech processing systems Application software Call centers Signal, Image and Speech Processing Information Systems Applications (incl. Internet) Call Center/Customer Service Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Fundamentals -- Speech Quality in a Telephone Conversation -- Perceptual Quality Space in a Telephone Conversation -- Direct Scaling of Perceptual Dimensions in a Conversational Situation -- Conversational Validation Experiments -- Resulting Quality Profile in a Telephone Conversation -- Instrumental Diagnostic Conversational Quality Modeling -- Conclusions. This book presents a new diagnostic information methodology to Sommario/riassunto assess the quality of conversational telephone speech. For this, a conversation is separated into three individual conversational phases (listening, speaking, and interaction), and for each phase corresponding perceptual dimensions are identified. A new analytic test method allows gathering dimension ratings from non-expert test subjects in a direct way. The identification of the perceptual dimensions and the new test method are validated in two sophisticated

conversational experiments. The dimension scores gathered with the

new test method are used to determine the quality of each

conversational phase, and the qualities of the three phases, in turn, are combined for overall conversational quality modeling. The conducted fundamental research forms the basis for the development of a preliminary new instrumental diagnostic conversational quality model. This multidimensional analysis of conversational telephone speech is a major landmark towards deeply analyzing conversational speech quality for diagnosis and optimization of telecommunication systems.