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Titolo	The art and science of surround and stereo recording : including 3D audio techniques // Edwin Pfanzagl-Cardone
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Descrizione fisica	1 online resource (XXIV, 412 p. 346 illus., 135 illus. in color.)
Disciplina	621.3893
Soggetti	Sound - Recording and reproducing Stereophonic sound systems
Lingua di pubblicazione	Inglese
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Nota di contenuto	Spatial Hearing -- Correlation und Coherence -- Stereo microphone techniques -- Surround microphone techniques -- Artificial head recordings -- Some thoughts on subjective listening tests -- An attempt at a qualitative ranking of several surround-microphones -- an examination of various studies in the field -- Analysis of frequency dependent correlation and coherence in surround microphone systems -- Analysis of frequency dependent correlation in stereo-microphone systems -- BQIrep -- proposal of a 'Binaural Quality Index' for reproduced music -- Case studies of surround and stereo-recordings. - Short history of microphone techniques including DECCA, RCA and COLUMBIA.
Sommario/riassunto	This book presents an extensive and timely survey of more than 30 surround and 20 stereo-microphone techniques. Further, it offers, for the first time, an explanation of why the RCA "Living Stereo" series of legacy recordings from the 1950s and 60s is still appreciated by music lovers worldwide, despite their use of an apparently incorrect recording technique from the perspective of psychoacoustics. Discussing this aspect in detail, the book draws on the author's study of concert hall acoustics and psychoacoustics. The book also analyzes the "fingerprint" features of a selected number of surround and – more importantly – stereo microphone techniques in depth by measuring their signal cross-correlation over frequency and also using an artificial human

head. In addition, the book presents a rating of microphone techniques based on the assessment of various acoustic attributes, and merges the results of several subjective listening tests, including those conducted by other researchers. Building on this knowledge, it provides fresh insights into important microphone system features, from stereo to 3D audio. Moreover, it describes new microphone techniques, such as AB-PC, ORTF-T and BPT, and the recently defined BQIrep (Binaural Quality Index of reproduced music). Lastly, the book concludes with a short history of microphone techniques and case studies of live and studio recordings.
