

1. Record Nr.	UNINA9910623995803321
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Titolo	Sonic Interactions in Virtual Environments / / edited by Michele Geronazzo, Stefania Serafin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031040214 303104021X
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (XXII, 428 p. 118 illus., 79 illus. in color.)
Collana	Human-Computer Interaction Series, , 2524-4477
Classificazione	COM018000COM034000COM070000MUS000000
Disciplina	005.437 004.019
Soggetti	User interfaces (Computer systems) Human-computer interaction Application software Music Interactive multimedia Multimedia systems User Interfaces and Human Computer Interaction Computer and Information Systems Applications Media Design Multimedia Information Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I Introduction: Sonic Interactions in Virtual Environments: the Egocentric Audio Perspective of the Digital Twin -- Part II Interactive and Immersive Audio: Procedural Modeling of Interactive Sound Sources in Virtual Reality -- Interactive and Immersive Auralization -- System-to-User and User-to-System Adaptations in Binaural Audio -- Audio Quality Assessment for Virtual Reality -- Part III Sonic Interactions: Spatial Design Considerations for Interactive Audio in Virtual Reality -- Embodied and Sonic Interactions in Virtual Environments: Tactics and Exemplars -- Supporting Sonic Interaction in Creative, Shared Virtual Environments -- Spatial Audio Mixing in Virtual Reality -- Part IV Sonic

Experiences: Audio in Multisensory Interactions: from Experiments to Experiences -- Immersion in Audiovisual Experiences -- Augmenting Sonic Experiences through Haptic Feedback -- From the Lab to the Stage: Practical Considerations on Designing Performances with Immersive Virtual Musical Instruments -- Index.

Sommario/riassunto

This open access book tackles the design of 3D spatial interactions in an audio-centered and audio-first perspective, providing the fundamental notions related to the creation and evaluation of immersive sonic experiences. The key elements that enhance the sensation of place in a virtual environment (VE) are: Immersive audio: the computational aspects of the acoustical-space properties of Virtual Reality (VR) technologies Sonic interaction: the human-computer interplay through auditory feedback in VE VR systems: naturally support multimodal integration, impacting different application domains Sonic Interactions in Virtual Environments will feature state-of-the-art research on real-time auralization, sonic interaction design in VR, quality of the experience in multimodal scenarios, and applications. Contributors and editors include interdisciplinary experts from the fields of computer science, engineering, acoustics, psychology, design, humanities, and beyond. Their mission is to shape an emerging new field of study at the intersection of sonic interaction design and immersive media, embracing an archipelago of existing research spread in different audio communities and to increase among the VR communities, researchers, and practitioners, the awareness of the importance of sonic elements when designing immersive environments.
