Mark Grimshaw

“Sonic Virtuality”

In the public mind, sound is a sound wave, that is, in the standard acoustics definition, sound is an ‘oscillation in pressure, stress, particle displacement, particle velocity etc., propagated in a medium with internal forces (e.g. elastic or viscous) or the superposition of such propagated oscillation.’ But there are several other definitions, including a secondary acoustics definition, that variously define sound as an event, the property of an object, or an auditory sensation. In this talk, I present another definition: that of sonic virtuality in which 'sound is an emergent perception arising primarily in the auditory cortex and that is formed through spatio-temporal processes in an embodied system.’ This perception emerges from a sonic aggregate that comprises a number of factors such as memory and experience, emotion and affect, belief and expectation, and, optionally, auditory sensations from sound waves and sensations from other sensory modalities. Such a definition encapsulates within it a number of phenomena, such as some forms of tinnitus and imagined sound or auditory imagery, and thus defines these as sound. As the definition is designed to have practical purpose, I also present a number of scenarios in which sonic virtuality can be used.