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Development of Automatically Updated Soundmaps for the Preservation of Natural Environment

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ABSTRACT

Automatically Updated Soundmaps are maps that convey the sound rather than the visual information content of an area of interest, at a certain time instant or period. Sound features encapsulate information that can be combined with the visual features of the landscape, thus leading to useful environmental conclusions. This work aims to construct an Automatically Updated Soundmap of an area of environmental interest. A hierarchical pattern recognition approach method is proposed here, that can exploit sound recordings collected by a network of microphones. Hence, after appropriate signal processing, the large amounts of information, originally in the raw form of sound recordings, can be presented in the concise yet meaningful form of a periodically updated soundmap.

KEYWORDS

Soundmaps, Acoustic Ecology, Hierarchical Pattern Recognition, Network of Microphones

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