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3D Auditory Interface for Desktop Applications

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ABSTRACT

An immersive audio environment for desktop applications is presented. It allows the spatialisation of 3D sound fields around an almost free mobile listener. The sound field is reproduced by a several loudspeakers positioned along the desktop edges without using head tracking. The loudspeaker signals are derived by using the principle of the wave field synthesis approach combined with different panning techniques to overcome the insufficient loudspeaker layout. Therefore virtual sources can be positioned in azimuth, elevation and distance, too. The reproduction area around the listener and the possible source space is restricted to a defined area.