Application of A 2D Markovian approach to the modelling of sound propagation in streets

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Abstrak

Markov approach has been used in modeling multiple reflections or reverberation in rooms. This paper examines the application of Markov approach in the study of propagation of sound in streets by treating multiple reflections in streets as a Markov process. In this preliminary study a two dimensional model has been employed. Results obtained are compared with those obtained using ray tracing, RAYNOISE. It is concluded that the sound field predicted by the Markov process is similar to the sound field obtained by the ray tracing model using the diffuse option and it is suggested that the method can be extended to account for application in 3D streets