

Mathematical Modeling of the Sound Energy Propagation in Buildings

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Abstract: The paper describes the main models of sound fields of buildings. Descriptions, classification and methods of realization of mathematical models are given. The dependence of the accuracy of the models on the degree of conformity of the assumptions that lay in the basis of models, with physical acoustic processes is observed. For practical use it is recommended to apply numerical implementations of statistical energy approach and modeling of sound fields by tracing rays.

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