

Predicting Automotive Interior Noise Including Wind Noise by Statistical Energy Analysis

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Abstract : The applications of soundproof materials for reduction of high frequency automobile interior noise have been researched. This paper presents a sound pressure prediction technique including wind noise by Hybrid Statistical Energy Analysis (HSEA) in order to reduce weight of acoustic insulations. HSEA uses both analytical SEA and experimental SEA. As a result of chassis dynamo test and road test, the validity of SEA modeling was shown, and utility of the method was confirmed.

Keywords : vibration, noise, road noise, statistical energy analysis

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