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TITLE: A German-French Acoustic Road Pavement Database: DEUFRABASE Latest Version

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ABSTRACT BODY:

Abstract (200 words): The aim of this database developed during two DEUFRAKO (German/French cooperation) projects is to provide a tool to predict in a large number of predefined situations, the impact of road pavements on Lden estimation for realistic configurations in terms of geometry, traffic composition and propagation effects. The method implemented is based (i), on the standardized light and heavy vehicles L_{Amax} measured according to ISO pass-by method, (ii), on the relationship between this L_{Amax} and the single vehicle L_{Aeq} calculated on a 1-hour time period, (iii), on the excess sound attenuation between two receivers, one located in the road vicinity (7.50m-1.20m) and the other in farfield and (iv), on an average daily traffic distribution. In 2008, a first version of the database was implemented and uploaded on the German partner's website. More recently, the database structure has been redesigned to easily add new configurations of topography, traffic and pavements. New indicators, representative for instance of urban constraints, could also be envisaged.

The paper deals with the description and validation of the procedures implemented, including their accuracy estimation, the new open access website (deufrabase.ifsttar.fr) and how to use it for road traffic noise prediction.

CURRENT TECHNICAL COMMITTEE: Noise

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Measuring, Modeling, and Managing Transportation Noise

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Session Broadcast : I am interested in having this paper's presentation broadcast live in real-time over the internet.