

## 184<sup>th</sup> Meeting of the Acoustical Society of America

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**Place:**

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**Title:**

New methods for predicting Soundscape

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**Abstract:**

The ISO 12913 Soundscape standard describes procedures to describe the acoustic environment in context and cognition and to interpret it with the help of psychoacoustics. This presupposes the presence of an acoustic environment and an interrogation of the people in this soundscape. This was limited by the pandemic and therefore led to a greater focus on creating an artificial acoustic environment. With the help of a simulation method, a human-focused acoustic virtual environment for the auralization of traffic noise is implemented based on existing traffic data. Traffic noise is an important attribute for the design of attractive living spaces. A reliable prediction of this burden in urban, development and traffic planning offer great potential. For this purpose, source, transmission, and receiver properties as well as movement profiles from traffic data and possible noise reduction measures are considered. Methods and concepts for simulation as well as human perception are focused. The potential to exploit available data from traffic and planning is demonstrated using example scenarios. The simulation enables the auralization and evaluation of the perception of traffic noise in different scenarios.

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