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Unpleasantness and annoyance of tyre noises

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The European Leon-T project aims to reduce particles and noise emissions from industrial road vehicle tyres. For noise, an experiment consisted of evaluating the short-term annoyance of different tyre noises for people living near a traffic lane. Signals were simulated by adjusting two parameters identified as the most prominent ones in a previous study (intensity, tonalness). A full factorial design was used, with two levels for each factor. Four sequences of about 10 minutes were prepared and played in a sound-proof booth in which a participant had a relaxing activity (e.g. reading a magazine). After each sequence, the participant rated the annoyance of the sequence. 48 people took part in the experiment (24 young students and 24 people aged between 40 and 60). The results of this experiment will be presented at the conference. In particular, they will be compared with those of a previous study in which listeners rated the unpleasantness of isolated passing noises, in an active listening situation.

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