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1. THE APPLICATION

SILVARSTAR Auralisation Tool ("**Licensed Application**") is a piece of software created for the simulation and auralisation of train pass-bys. The tool was created within the EU research project SILVARSTAR by Empa in collaboration with ISVR (Institute of Sound & Vibration Research) of the University of Southampton. The user can choose from a variety of different simulation parameters using the UI. By default, the tool exports a TXT file with all the important information of the simulation and a calibrated monophonic audio file of the simulated train pass-by scenario. The user is given the option to export the audio in three additional formats: stereo, AmbiX (1st order ambisonics), and audio ready to be played back via the SILVARSTAR VR Tool. The user can also export the three following figures in PNG format: the track decay rates (TDR), the propagation situation in cross-section, and the level-time history of the simulation.

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Pieren, R., Georgiou, F., Squicciarini, G., & Thompson, D. J. (2026). Auralisation of train pass-bys for virtual reality demonstration of combined noise mitigation measures. Applied Acoustics, 242, 111063. <https://doi.org/10.1016/j.apacoust.2025.111063>

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For general inquiries, complaints, questions or claims concerning the Licensed Application,

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