

List of publication with regard to particle spreading and infection risk modelling in aircraft cabins and train compartments.

Journal Publications:

Dehne T. and Schmeling, D. „Influence of seating position and ventilation on aerosol dispersion in a passenger aircraft“. CEAS Aeronautical Journal. 2025. <https://doi.org/10.1007/s13272-025-00915-1>

Webner F. et al. “Airborne SARS-CoV-2 in aircraft cabins: New inactivation data significantly influences infection risk predictions”. CEAS Aeronautical Journal. 2025. <https://doi.org/10.1007/s13272-025-00822-5>

Webner F. et al. “A Direct Infection Risk Model for CFD Predictions and its Application to SARS-CoV-2 Aircraft Cabin Transmission”. Indoor Air. 2024. <https://doi.org/10.1155/2024/9927275>

Schmeling D. et al. “Numerical and experimental study of aerosol dispersion in the Do728 aircraft cabin”. CEAS Aeronautical Journal. 2023. <https://doi.org/10.1007/s13272-023-00644-3>

Konstantinov M. et al. “Numerical Simulation of the Aerosol Formation and Spreading in an Air-Conditioned Train Compartment”. Journal of Aerosol Science. 2023. <https://doi.org/10.1016/j.jaerosci.2023.106139>

Schmeling D. et al. “Analysis of Aerosol Spreading in a German Inter City Express (ICE) Train Carriage”. Building and Environment. 2022. <https://doi.org/10.1016/j.buildenv.2022.109363>

Conference Proceedings (with doi):

Krüger L. et al. “Impact of walking passengers on the aerosol spreading in a passenger train”. In: proceedings of the 17th Roomvent Conference 2024. 2025. https://www.e3s-conferences.org/articles/e3sconf/abs/2025/72/e3sconf_roomvent2025_01047/e3sconf_roomvent2025_01047.html

Schiepel D. et al. “Influence of the Airflow Concept on the Aerosol Spreading in a Generic Train Compartment”. In: proceedings of the 10th Transport Research Arena 2024. 2025. https://doi.org/10.1007/978-3-031-88974-5_60

Dehne T. et al. “ Experimental Study of Aerosol Dispersion in a Single-Aisle Aircraft with Cabin Displacement Ventilation”. In: proceedings of the DLRK 2024. 2024. <https://doi.org/10.25967/630040>

Shishkin et al. “Numerical study of aerosol dispersion in the aircraft cabin”. In: proceedings of the STAB Symposium 2022. 2024. https://doi.org/10.1007/978-3-031-40482-5_52