



Recent Advances in Aeroacoustics: Methods and Technologies in Transport Electrification Era

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Message from the Guest Editors

Electric propulsion has been recognized as one of the most promising approaches for reducing emissions, such as noise and pollutants, both in the aerospace and automotive fields. However, electrified transport configurations will bring forward novel issues.

This scenario requires innovative methods and approaches to design technological solutions for reducing aircraft noise footprints and vehicle pass-by noise, complying with increasingly stringent regulations. Therefore, stochastic noise sources with RANS-based methods (SNGR, RPM) and solution methods for the acoustic analogy (BEM, FEM, DGM, etc.) are still an important area of research. Furthermore, recent advances in deep learning theory are urging the development of physics-informed machine learning techniques to improve and speed up the prediction of noise generation and propagation phenomena.

Topics to be covered in this Special Issue deal with computational and experimental acoustics, data science, and machine learning of, but not limited to, urban air mobility and VTOL vehicles, aircraft with distributed electric propulsion, automotive hybrid electric vehicles, and all related technologies and sub-systems.





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Message from the Editor-in-Chief

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