

Publication list Aerospace

Thesis's, book chapters and journal articles (in reverse chronological order):

- [1] KUMAR, S., FENG, L., ORRENIUS, U., *Sound Transmission through Double Leaf Partitions: a Criterion for Quick Convergence using Space Harmonic Analysis*, Journal of Vibration and Acoustics **138** (4), 2016.
- [2] ORRENIUS, U. LIU, H., WAREING, A., FINNVEDEN, S., COTONI, V., *Wave modelling in predictive acoustics: Application to rail-vehicles and aircraft*, J. of Wave motion, **51** (2014), pp. 635-649.
- [3] BARTOLOZZI, G., PIERINI, G., ORRENIUS, U., BALDANZINI, N., *An equivalent material formulation for sinusoidal corrugated cores of structural sandwich panels*, Composite Structures **100** (2013), pp. 173–185.
- [4] KUMAR, S., FENG, L., ORRENIUS, U., *Predicting the Sound Transmission Loss of Honeycomb Panels using the Wave Propagation Approach*, Acta Acustica united with Acustica, Vol. **97** (2011), pp. 869-876.

Conference papers (in reverse chronological order):

- [1] U. Orrenius, U. Tengzelius, P. Ulvengren, J-O. Ehk, M. Åbom, *Noise simulation for UAM integration- Application to a health-care logistics system*, in Proceedings of the 2024 DICUaM Delft International Conference on Urban Air-Mobility, Delft, The Netherlands, 20-22 March 2024 (2024).
- [2] P. Ulvengren, U. Orrenius, U. Tengzelius, J-O. Ehk, M. Åbom, *UAM system integration – system analysis and noise simulations in support of regional and city planning*, in Proceedings of the 2024 DICUaM Delft International Conference on Urban Air-Mobility, Delft, The Netherlands, 20-22 March 2024 (2024).
- [3] E. Lundberg, P. Göransson, U. Orrenius, P. Wennhage, *Comparison of two different simplified micro structures for calculating flow resistivity of anisotropic open cell porous foams*, in Proceedings of the 2016 ISMA International Conference on Noise and Vibration Engineering, Leuven, Belgium, 15-17 September 2016 (2016).
- [4] E. Lundberg, P. Göransson, U. Orrenius, B. Semeniuk *Sensitivity of macroscopic properties of a multi-layer panel including porous material on the micro-level parameters of an open cell porous material* in Proceedings of the 2014 ISMA International Conference on Noise and Vibration Engineering, Leuven, Belgium, 15-17 September 2014 (2014) pp.2135-2149
- [5] Kirchner, K-R, Brännström, F., Orrenius, U., Hallez, R. "Aero-acoustic noise generation and transmission modelling for a high-speed train driver's cab", Proceedings Internoise 2012, New York, USA.
- [6] Kumar, S., Feng, L., Orrenius, U., "Transmission loss of rib-stiffened double leaf partitions with cavity absorption", Proceedings NOVEM 2012, Sorrento, Italy.

- [7] G. Bartolozzi, U. Orrenius, A. Pratellesi and M. Pierini, "*An Equivalent Orthotropic Plate Model for Sinusoidal Core Sandwich Panels in Optimization Processes*", in Proceedings NOVEM2012, Sorrento, IT, 2012.
- [8] Bartolozzi, G., Orrenius, U., Pierini, M., "*Handling of Acoustic Constraints in Multidisciplinary Optimization Processes*", Proceedings ISMA 2012, Leuven, Belgium.
- [9] Orrenius, U., Waering, A. and Kumar, S. "*Prediction and control of sound transmission through honeycomb sandwich panels for aircraft fuselage and train floors*", Proceedings ICSV 2010, Cairo.
- [10] Orrenius, U., Waering, A and Cotoni, V, "*Analysis of sound transmission through aircraft fuselages excited by turbulent boundary layer or diffuse acoustic pressure fields*", Proceedings Internoise 2009, Ottawa.
- [11] Orrenius, U, Waering, A and Cotoni, V., "*Analysis of sound transmission through periodic structures typical of railway carriages and air-craft fuselages*", Proceedings NOVEM 2009, Oxford, England.
- [12] Kumar, S., Feng, L., Orrenius, U. "*The Effects of Damping Treatment on Honeycomb Sandwich Panels*", Proceedings Internoise 2008, Shanghai.
- [13] Orrenius, U. and Wareing, A., "*Coupled FE-SEA analysis of the sound radiation from aircraft structures: Effects of noise control treatment. Proceedings of Internoise 2008*", Shanghai.
- [14] U. Orrenius, and R. Enblom, 2001 "*Acoustic optimization of carriage structures: Weight efficient setting of subsystem requirements*", Proceedings InterNoise, Den Haag 2001.