

# Elenco pubblicazioni

## **Riviste con peer review**

1. Fusaro G., Barbaresi L., Guidorzi P., Garai M., *Investigation of the sound insulation and natural ventilation performance of a metamaterial-based open window*, **Building and Environment** **2024**, <https://doi.org/10.1016/j.buildenv.2024.112140>.
2. Fusaro G., Garai M., *Acoustic requalification of an urban evolving site and design of a noise barrier: a case study at the Bologna Engineering School*, **Applied Sciences** **2024**, <https://doi.org/10.3390/app14051837>.
3. Fusaro G., *Sviluppo di una finestra metamateriale con ventilazione e attenuazione acustica ottimizzata*, **Rivista Italiana di Acustica** **2023**, <https://doi.org/10.3280/ria2-2023oa15499>.
4. Fusaro, G.; Barbaresi, L.; Cingolani, M.; Garai, M.; Ida, E.; Prato, A.; Schiavi, A. Investigation of the Impact of Additive Manufacturing Techniques on the Acoustic Performance of a Coiled-up Resonator. **JASA** **2023**, <https://doi.org/10.1121/10.0019474>.
5. Cingolani, M.; Fusaro, G.; Fratoni, G.; Garai, M. Influence of thermal deformations on sound absorption of three-dimensional printed metamaterials. **JASA** **2022**, *151*, doi:10.1121/10.0011552.
6. Fusaro, G.; Kang, J.; Asdrubali, F.; Chang, W.-S. Assessment of Acoustic Metawindow Unit through Psychoacoustic Analysis and Human Perception. **Appl. Acoust.** **2022**, doi:<https://doi.org/10.1016/j.apacoust.2022.108885>.
7. Fusaro, G.; Kang, J.; Chang, W.-S.S. Effective Soundscape Characterisation of an Acoustic Metamaterial Based Window: A Comparison between Laboratory and Online Methods. **Appl. Acoust.** **2022**, *193*, 108754, doi:<https://doi.org/10.1016/j.apacoust.2022.108754>.
8. Fusaro, G.; Yu, X.; Lu, Z.; Cui, F.; Kang, J. A metawindow with optimised acoustic and ventilation performance. **Appl. Sci.** **2021**; *11*:1–16. <https://doi.org/10.3390/app11073168>.
9. Fusaro, G.; Kang, J. Participatory approach to draw ergonomic criteria for window design **Int. J. Ind. Ergon.** **2021**, *82*, doi:10.1016/j.ergon.2021.103098.
10. Fusaro, G.; Yu, X.; Kang, J.; Cui, F. Development of metacage for noise control and natural ventilation in a window system. **Appl. Acoust.** **2020**, *170*, 107510, doi:10.1016/j.apacoust.2020.107510.
11. Fusaro, G.; D'alessandro, F.; Baldinelli, G.; Kang, J. Design of urban furniture to enhance the soundscape: A case study. **Build. Acoust.** **2018**, *25*, 61–75, doi:10.1177/1351010X18757413.

## **Congressi scientifici internazionali**

1. Hill, J.; Pereira, L.; Harvie-Clark, J.; Healey, J.; Fusaro, G. Towards a simplified model for partially open windows – connecting acoustic and thermal comfort, **Internoise 2024; Nantes, 2024**.
2. Fusaro, G.; Billi, R.; D'Orazio, D. Multiphysical design for optimised ventilation and noise attenuation in ducts: an approach using metamaterials., **Internoise 2024; Nantes, 2024**.
3. Pettoni Possenti, V.; Maccaferri, E.; Fusaro, G.; Barbaresi, L.; Mazzocchetti, L. Preliminary investigation of nanofibrous membranes for sound absorption, **Internoise 2024; Nantes, 2024**.
4. Fusaro, G.; Garai, M.; Barbaresi, L.; Application of the International Standards for noise insulation assessment of a metamaterial-based ventilated window, **Internoise 2024; Nantes, 2024**.
5. Fusaro G., D' Auria S., D'Orazio D., *Multiphysical numerical analysis for acoustic metamaterials in ventilated ducts*, in: **Internoise 2023, Chiba, Japan, 2023**: pp. 7–8.
6. Cingolani, M.; Fusaro, G.; Garai, M. The Influence of Thermo-Hygrometric Conditions on Metamaterials ' Acoustic Performance : An Investigation on a 3-D Printed Coiled-up Resonator. In **Proceedings of the Internoise; Glasgow, 2022**.

7. Fusaro, G.; Garai, M.; Kang, J. Broadband potential optimisation of a full scale acoustic metawindow performance. In Proceedings of the Inter-Noise 2022; Glasgow (UK), **2022**.
8. Cingolani, M.; Fusaro, G.; Fratoni, G.; Garai, M. MPP sound absorbers investigation to optimise a lecture hall speech intelligibility. In Proceedings of the ICA 2022; Gyeongju (Korea), **2022**.
9. Pigliatile, I.; Fusaro, G.; Kang, J.; Chang, W-S.; Pisello, A. L. *Environmental thermal influence over soundscape perception: a test room experimental campaign involving the psychological and physiological description of the indoor environment*. Journal of Physics: Conference Series; **2021**; 2042, 1, 012136; 10.1088/1742-6596/2042/1/012136.
10. Fusaro, G.; Yu, X.; Cui, F.; Kang, J. *Full-scale metamaterial window for building application*. Proceedings of Inter-Noise 2020; Seoul, **2020**.
11. Fusaro, G.; Yu, X.; Cui, F.; Kang, J. *Development of a metamaterial for acoustic and architectural improvement of window design*. Proceedings of 23rd Int. Conf. Acoust. **2019**, 1977–1983.
12. Fusaro, G.; Yu, X.; Cui, F.; Kang, J. *Development of a window system with acoustic metamaterial for air and noise control*. Proceedings of 10th International Conference on Computational Methods (ICCM); Singapore, **2019**.
13. Fusaro, G.; D'alessandro, F.; Baldinelli, G.; Kang, J. *Potential of a soundscape element design*. Proceedings of 17th CIRIAF National Congress - Sustainable Development, Human Health, and Environmental Protection; Perugia, **2017**.
14. Fusaro, G.; D'Alessandro, F.; Kang, J.; Aletta, F.; Margaritis, E.; Asdrubali, F. *A prototype of a street furniture element for soundscape management*. Proceedings of the ICSV 2016 - 23rd International Congress on Sound and Vibration: From Ancient to Modern Acoustics; **2016**.

### ***Congressi scientifici nazionali***

1. Fusaro, G. METAMATERIALI PER FINESTRE INSONORIZZATE E VENTILATE: EVOLUZIONE DELLA PROGETTAZIONE. In Proceedings of the AIA 2024; Taormina (IT), **2024**.
2. Fusaro, G.; Pettoni Possenti, V.; Maccaferri, E.; Giorgini, L.; Mazzocchetti, L.; Garai, M.; Barbaresi, L. *STUDIO PRELIMINARE DI NANOFIBRE ELETTROFILATE PER L'ASSORBIMENTO ACUSTICO*. In Proceedings of the AIA 2024; Taormina (IT), **2024**.
3. Fusaro, G.; Barbaresi, L.; Cingolani, M.; Garai, M.; Ida, E.; Prato, A.; Schiavi, A., *INFLUENCE OF ADDITIVE MANUFACTURING ON ACOUSTIC METAMATERIALS PERFORMANCE : A CASE STUDY*, in: *Forum Acusticum, Turin, 2023*: pp. 1–6.
4. Fusaro, G.; Barbaresi, L.; Cingolani, M.; Garai, M.; Ida, E.; Prato, A.; Schiavi, A. *STUDIO PRELIMINARE DI NANOFIBRE ELETTROFILATE PER L'ASSORBIMENTO ACUSTICO*. In Proceedings of the AIA 2023; Ferrara (IT), **2023**.
5. Fusaro, G.; Cingolani, M.; Fratoni, G.; Barbaresi, L.; Garai, M. IMPLEMENTAZIONE MULTI-FISICA FEM PER PROTOTIPAZIONE DI METAMATERIALI ACUSTICI. In Proceedings of the AIA 2022; Matera (IT), **2022**.

***Temi o linee di ricerca:*** acustica edilizia; acustica ambientale; metamateriali; materiali innovative; analisi multi-dominio; psicoacustica; progettazione industrial; ergonomia; sostenibilità

**Research topics:** building acoustics; environmental acoustics; metamaterials; innovative materials; multi-domain analysis; psychoacoustics; industrial design; ergonomics; sustainability