

Published works

Domenico De Salvio, Ph.D.

Peer-reviewed Journal papers:

- *Student Activity in Suboptimal Thermal and Acoustic Conditions: An In-Field Study in Active Classrooms* * Reference: Applied Sciences, 15(6), 3119 * Authors: Fratonì, G., **De Salvio, D.**, Tardini, V., Garai, M., Valdiserri, P., Biserni, C., D'Orazio, D. * Publisher: MDPI
- *Machine learning per la separazione e la misura di sorgenti sonore coesistenti in spazi chiusi* * Reference: Rivista italiana di acustica 1, 2024, 19-28 * Author: **De Salvio, D.** * Publisher: Franco Angeli
- *Exploratory study on ML-based measurements in healthcare facilities* * Reference: Applied Acoustics 214, 109660 * Authors: Cingolani, M., **De Salvio, D.**, D'Orazio, D., Garai, M. * Publisher: Elsevier
- *Blind source separation by long-term monitoring: a variational autoencoder to validate the clustering analysis* * Reference: The Journal of the Acoustical Society of America 153 (1), 738-750 * Authors: **De Salvio, D.**, Bianco, M., Gerstoft, P., D'Orazio, D., Garai, M. * Publisher: American Institute of Physics
- *Effectiveness of acoustic treatments and PA redesign by means of student activity and speech levels* * Reference: Applied Acoustics 194, 108783 * Authors: **De Salvio, D.**, D'Orazio, D. * Publisher: Elsevier
- *Unsupervised analysis of background noise sources in active offices* * Reference: The Journal of the Acoustical Society of America 149 (6), 4049-4060 * Authors: **De Salvio, D.**, D'Orazio, D., Garai, M. * Publisher: American Institute of Physics
- *Measuring the speech level and the student activity in lecture halls: Visual-vs blind-segmentation methods* * Reference: Applied Acoustics 169, 107448 * Authors: D'Orazio, D., **De Salvio, D.**, Anderlucci, L., & Garai, M. * Publisher: Elsevier

International Congresses Proceedings

- *Noise assesement within healthcare facilities: annoyance and intrusiveness of sound sources* * Authors: **De Salvio, D.**, Amodeo, V., Garai, M., Secchi, S. * Conference: Forum Acusticum/Euronoise, Malaga (Spagna), 23-26 giugno
- *Low-height noise barriers for railways: measurement standardization and metamaterials application on noise reduction* * Authors: **De Salvio, D.**,

Guidorzi, P., Garai, M. Conference: Forum Acusticum/Euronoise, Malaga (Spagna), 23-26 giugno

- *Preliminary study of a University Hospital outdoor noise environment based on monitoring and soundscape analysis* * Authors: Nora, A., **De Salvio, D.**, Fusaro, G., Barbaresi, L. * Conference: Forum Acusticum/Euronoise, Malaga (Spagna), 23-26 giugno
- *Metamaterials application on low-height noise barrier for railways: Challenges of real-world scenarios* * Authors: **De Salvio, D.**, Garai, M. * Conference: 188th Meeting of the Acoustical Society of America/25th International Congress on Acoustics, New Orleans, Louisiana (USA), 18-23 maggio
- *Virtual assessment of phone booths' acoustic performance in laboratory and office environments* * Authors: Fratoni, G., **De Salvio, D.**, D'Orazio, D. * Conference: Internoise, Nantes (Francia), 25-29 agosto
- *Noise within hospital wards: a survey method* * Authors: **De Salvio, D.**, Amodeo, V., D'Orazio, D., Secchi, S., Garai, M. * Conference: Internoise, Nantes (Francia), 25-29 agosto
- *Analysis of the Gaussian assumption of single sound source measured and processed through sound level meter* * Authors: **De Salvio, D.**, D'Orazio, D., Garai, M. * Conference: Internoise, Nantes (Francia), 25-29 agosto
- *Statistical analysis of sound level meter monitoring* * Authors: **De Salvio, D.**, D'Orazio, D., Garai, M. * Conference: Forum Acusticum, Torino (Italia), 11-15 settembre
- *Variational Autoencoder and clustering techniques to segregate sound sources* * Authors: **De Salvio, D.**, Bianco, M., Gerstoft, P., D'Orazio, D., Garai, M. * Conference: 24th International Congress on Acoustics, Gyeongju (Corea), 24-28 ottobre
- *Assessing human activity noise in workspaces using machine learning and numerical models* * Authors: **De Salvio, D.**, Fratoni, G., D'Orazio, D., Garai, M. * Conference: Internoise, Glasgow (Scozia), 21-24 agosto
- *Clustering analyses to assess HVAC noise in real-world conditions* * Authors: **De Salvio, D.**, D'Orazio, D., Garai, M. * Conference: Internoise, Glasgow (Scozia), 21-24 agosto
- *Features analysis to label sound sources by long-term monitoring* * Authors: **De Salvio, D.**, Bianco, M., Gerstoft, P., D'Orazio, D., Garai, M. * Conference: 182nd Meeting of the Acoustical Society of America, Denver, Colorado (USA), 23-27 maggio
- *Tagging noise sources in offices through machine learning techniques* * Authors: D'Orazio, D., **De Salvio, D.**, Garai, M. * Conference: Euronoise, Madeira (Portogallo), 25-27 ottobre

- *Student activity and speech levels before and after acoustic enhancement and PA redesign* * Authors: **De Salvio, D.**, D'Orazio, D., Garai, M. * Conference: Euronoise, Madeira (Portogallo) 25-27 ottobre
- *Acoustical comfort in university lecture halls: simulating the dynamic role of occupancy* * Authors: Fratoni, G., **De Salvio, D.**, D'Orazio, D., Garai, M. * Conference: 17th International Building Performance Simulation Association, Bruges (Belgio), 1-3 settembre
- *Analysis of mechanical and human activity noise in open plan offices using statistical methods* * Authors: **De Salvio, D.**, D'Orazio, D., Rossi, E., Garai, M. * Conference: Forum Acusticum, Lyon (Francia), 7-11 dicembre
- *Signal-to-noise ratio in university lecture halls with low intelligibility* * Authors: D'Orazio, D., **De Salvio, D.**, Anderlucci, L., Garai, M. * Conference: 23rd International Congress on Acoustics, Aachen (Germania), 9 – 13 settembre
- *A statistical analysis of noise sources in open plan offices* * Authors: Rossi, E., D'Orazio, **De Salvio, D.**, D., Garai, M. * Conference: 23rd International Congress on Acoustics, Aachen (Germania), 9 – 13 settembre
- *Predicting speech intelligibility in university classrooms using geometrical acoustic simulations* * Authors: Fratoni, G., D'Orazio, D., **De Salvio, D.**, Garai, M. * Conference: 16th International Conference of International Building Performance Simulation Association, Roma (Italia), 2 – 4 settembre

Doctoral Thesis

De Salvio (2023). Advanced statistical models for the segregation, identification and measurement of coexisting sound sources. Ph.D. dissertation, University of Bologna.