

Domenico Stefani – Publications

FULL PAPERS

Journal Publications

1. [2025] **Improved Real-Time Six-degrees-of-freedom Dynamic Auralization Through Non-uniformly Partitioned Convolution** ([preprint](#))
(*In Press*) at the Journal of the Audio Engineering Society (JAES)
D. Stefani, M. Binelli, A. Farina, L. Turchet
2. [2025] **Real-Time Playing Technique Recognition Embedded in a Smart Acoustic Guitar** ([link](#))
EURASIP Journal on Audio, Speech, and Music Processing
D. Stefani, L. Turchet
3. [2025] **A Virtual Reality Interface for the Creation of 3D Spatial Audio Trajectories** ([preprint](#))([Journal Page](#))
Journal of the Audio Engineering Society (JAES)
M. Tomasetti, B. Van Kerrebroeck, M. M. Wanderley, **D. Stefani**, L. Turchet
4. [2024] **Musician-AI partnership mediated by emotionally-aware smart musical instruments** ([link](#))
International Journal of Human-Computer Studies, Volume 191, 2024,
L. Turchet, **D. Stefani**, J. Pauwels

Peer-reviewed Articles in Conference Proceedings

5. [2025] **Morphdrive: Latent Conditioning For Cross-Circuit Effect Modeling And A Parametric Audio Dataset Of Analog Overdrive Pedals** ([preprint](#))
Accepted at the 28-th Int. Conf. on Digital Audio Effects (DAFx25)
*F. A. Dal Rì, ***D. Stefani**, N. Conci, L. Turchet
* Equal contribution
6. [2024] **On the Importance of Temporally Precise Onset Annotations for Real-Time Music Information Retrieval: Findings from the AG-PT-set Dataset** ([link](#))
In Proceedings of the 19th International Audio Mostly Conference (AM'24)
D. Stefani, G. A. Giudici, L. Turchet
7. [2024] **Esteso: Interactive AI Music Duet Based on Player-Idiosyncratic Extended Double Bass Techniques** ([link](#))
In Proceedings of the International Conference on New Interfaces for Musical Expression (NIME'24), Utrecht, The Netherlands.
D. Stefani, M. Tomasetti, F. Angeloni and L. Turchet
8. [2024] **BCHJam: a Brain-Computer Music Interface for Live Music Performance in Shared Mixed Reality Environments** ([link](#))
in Proceedings of the 5th International Symposium on the Internet of Sounds (IS), Erlangen, Germany
M. Romani, G.A. Giudici, **D. Stefani**, D. Zanon, A. Boem and L. Turchet
[Best Student Paper award](#)
9. [2023] **Real-Time Embedded Deep Learning on Elk Audio OS** ([link](#))
In Proceedings of the International Symposium on the Internet of Sounds, Pisa, Italy, Oct 2023
D. Stefani and L. Turchet
10. [2022] **A Comparison of Deep Learning Inference Engines for Embedded Real-Time Audio Classification** ([link](#))
In Proceedings of the 25-Th International Conference on Digital Audio Effects (DAFx20in22), 3, 256–263. Vienna, Austria.
D. Stefani, S. Peroni, L. Turchet
11. [2022] **On the Challenges of Embedded Real-Time Music Information Retrieval** ([link](#))
In Proceedings of the International Conference on Digital Audio Effects (DAFx20in22), 3, 177–184. Vienna, Austria.
D. Stefani, L. Turchet
12. [2022] **Riconoscimento in Tempo Reale di Tecniche Espressive per Chitarra su Embedded Computers**

in Proceedings of the XXIII Colloquio di Informatica Musicale/Colloquium of Musical Informatics (CIM), Ancona, Italy

D. Stefani

13. [2021] **Bio-Inspired Optimization of Parametric Onset Detectors** ([link](#))

In Proceedings of the 24th International Conference on Digital Audio Effects (DAFx20in21), vol. 2, pp. 268–275, Sept. 2021.

D. Stefani, L. Turchet

Summary of bibliometric indicators

N. publications	13
N. journal articles	4
N. conference articles	9
N. first-authored articles	10
N. citations on Scopus	35
N. citations on Google Scholar	69
H-index on Scopus	3
H-index on Google Scholar	5

[Ph.D. Thesis](#)

- [2024] ***Embedded Real-time Deep Learning for a Smart Guitar: A Case Study on Expressive Guitar Technique Recognition*** ([link](#))

D. Stefani

[Demos](#)

- [2024] *Demo of Estesos: an AI Music Duet Based on Extended Double Bass*
at the Dictionary for Multidisciplinary Music Integration (DIMMI) Trento, November 29-30, 2024
[Best Demonstration award](#)
- [2023] *Demo: Real-Time Embedded Deep Learning on Elk Audio OS* at the 4th International Symposium on the Internet of Sounds (IS2), Pisa, Italy
- [2020] *Demo of the TimbreID-VST Plugin for Embedded Real-Time Classification of Individual Musical Instrument Timbres* at the 27th Conference of the Open Innovations Association (FRUCT), 2020

[Talks](#)

- [2024] *“Engine-Swap” on Two Spatial Audio Plugins Will Be Easy, Right? Lessons Learned*
Talk at the Audio Developer Conference 2024, 11-13 Nov 2024, Bristol UK
- [2022] *Embedded Real-Time Expressive Guitar Technique Recognition*
in Embedded AI for NIME: Challenges and Opportunities Workshop