

# MICHELE MANCUSI

Senior Research Scientist @Sony, Ph.D.

@mancusi@di.uniroma1.it   michelemancusi.netlify.app   in michele-mancusi   michelemancusi   @michelemancusi   Google Scholar

## LATEST EDUCATION

**Ph.D. in Computer Science**  
*Sapienza University of Rome*  
Conducted research on Deep Learning, Signal Processing, NLP, and Generative AI, advised by Prof. Emanuele Rodolà.

Nov 2019 – Jan 2024  
Rome, Italy

**M.Sc. in Physics**  
*Sapienza University of Rome*  
Grade: **110/110 magna cum laude**. Conducted research on Quantum Information with Prof. Fabio Sciarrino.

Sep 2016 – Jan 2019  
Rome, Italy

## LATEST WORK EXPERIENCES

**Senior Research Scientist**  
*Sony*

Apr 2024 – Present  
Stuttgart, Germany

Conducting research on deep learning for generative models for speech and music with LLM and diffusion models. Working in the AI, Speech and Sound Group.

**Visiting Research Scientist**  
*Sony*

Nov 2023 – Jan 2024  
Stuttgart, Germany

Conducted research on deep learning for effects removal and timbre transfer with diffusion models. Worked with Dr. Stefan Uhlich in the AI, Speech and Sound Group.

**Research Scientist Intern**  
*Microsoft*

Jun 2023 – Sep 2023  
Redmond, Washington, USA

Conducted research on deep learning for unsupervised speech separation. Worked with Dr. Sebastian Braun in the Audio and Acoustics Research Group.

**Data Scientist Intern**  
*Musixmatch*

Sep 2022 – Mar 2023  
Bologna, Italy

Conducted research on deep learning for singing voice detection. Worked with Dr. Loreto Parisi in the AI Team.

## SELECTED PUBLICATIONS

- Mancusi, M.**, Halychanskyi, Y., Cheuk, K., Lai, C., Moliner, E., Uhlich, S., Koo, J., Martínez, M., Liao, W., Fabbro, G., & Mitsufuji, Y. (2025). *Latent Diffusion Bridges for Unsupervised Musical Audio Timbre Transfer*. **ICASSP 2025**
- Mancusi, M.**, Ciranni, R., Mariani, G., Postolache, E., Fabbro, G., Cosmo, L., & Rodolà, E. (2025). *COCOLA: Coherence-oriented contrastive learning of musical audio representations*. **ICASSP 2025**
- Mancusi, M.**, Mariani, G., Tallini, I., Postolache, E., Cosmo, L., & Rodolà, E. (2024). *Multi-Source Diffusion Models for Simultaneous Music Generation and Separation*. **ICLR 2024 (Oral)**
- Santilli, A., Severino, S., Postolache, E., Maiorca, V., **Mancusi, M.**, Marin, R., & Rodolà, E. (2023). *Accelerating Transformer Inference for Translation via Parallel Decoding*. **ACL 2023**
- Mancusi, M.**, Postolache, E., Mariani, G., Santilli, A., Cosmo, L., & Rodolà, E. (2023). *Latent Autoregressive Source Separation*. **AAAI 2023**

## ACHIEVEMENTS

**ICLR notable top 1% paper (oral)**  
*ICLR 2024*

2024

First-author paper selected among the top 1% submissions for an oral presentation at ICLR 2024

**Winner of AWS Cloud Credit for Research**  
*Amazon*

2024

Awarded €50,000 in AWS credit for the best generative AI research project

**Winner of Imminent Research Grant**  
*Translated's Research Center*

2022

Awarded €20,000 for the best machine translation research project

**Best Ph.D. Research Project**  
*Sapienza University of Rome*

2020

Recognized as one of the top doctoral research projects and awarded research funding

## ACADEMIC EXPERIENCE

**Teaching Assistant**  
*Sapienza University of Rome*

2023  
Rome, Italy

Lectured at the Deep Learning and Applied AI MSc course and mentored students for their Master's Thesis

**Invited Talk**  
*Yale University*

Feb 13, 2023  
New Haven, Connecticut

Delivered a guest lecture on the *Latent Autoregressive Source Separation* paper upon the invitation of Prof. Ronald Coifman

## TECHNICAL SKILLS

PyTorch   WandB   Lightning   Hydra

AWS SageMaker   Azure ML

Slurm   HTCondor

## REFEREES

**Prof. Emanuele Rodolà** *ERC grantee*  
Sapienza University of Rome  
@rodola@di.uniroma1.it

**Dr. Stefan Uhlich**  
Sony  
@stefan.uhlich@sony.com

**Dr. Sebastian Braun**  
Microsoft  
@sebastian.braun@microsoft.com