

PERSONAL INFORMATION **Eleonora Lopez**

EDUCATION

- 2021–Present **PhD in Information and Communication Technology (ICT)**
Sapienza University of Rome, Italy.
- 2018–2021 **Masters of Engineering in Computer Science**
Sapienza University of Rome, Italy. Grade: 110/110 Cum Laudae
- 2014–2018 **Bachelor of Engineering in Computer Science**
Sapienza University of Rome, Italy. Grade: 109/110

PUBLICATIONS

- [1] **E. Lopez**, E. Grassucci, M. Valleriani, and D. Comminiello. “Multi-view hypercomplex learning for breast cancer screening”. In: *arXiv preprint arXiv:2204.05798* (2022).
- [2] **E. Lopez**, E. Chiarantano, E. Grassucci, and D. Comminiello. “Hypercomplex multimodal emotion recognition from EEG and peripheral physiological signals”. In: *IEEE Int. Conf. Acoust. Speech Signal Process. Workshops (ICASSPW)*. 2023, pp. 1–5.
- [3] **E. Lopez**, F. Betello, F. Carmignani, E. Grassucci, and D. Comminiello. “Attention-map augmentation for hypercomplex breast cancer classification”. In: *Pattern Recognition Letters* 182 (2024), pp. 140–146.
- [4] **E. Lopez**, E. Grassucci, D. Capriotti, and D. Comminiello. “Towards Explaining Hypercomplex Neural Networks”. In: *Int. Joint Conf. Neural Netw. (IJCNN)*. 2024, pp. 1–8.
- [5] **E. Lopez**, A. Uncini, and D. Comminiello. “PHemoNet: A Multimodal Network for Physiological Signals”. In: *IEEE Res. Technol. Soc. Industry (RTSI)* (2024).
- [6] **E. Lopez**, A. Uncini, and D. Comminiello. “Hierarchical Hypercomplex Network for Multimodal Emotion Recognition”. In: *IEEE Int. Workshop Mach. Learn. Signal Process. (MLSP)* (2024), pp. 1–6.
- [7] **E. Lopez**, L. Sigillo, F. Colonnese, M. Panella, and D. Comminiello. “Guess What I Think: Streamlined EEG-to-Image Generation with Latent Diffusion Models”. In: *submitted to IEEE Int. Conf. Acoust. Speech Signal Process. (ICASSP)* (2024).

ACADEMIC ACTIVITIES

- Sep 2024 **Invited Reviewer**
IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2025.
- Aug-Dec 2024 **Research Scholar**
Visiting period at NYU under the supervision of Krzysztof J. Geras, New York University (NYU), New York (NY).
- Jun 2024 **Special Session Organizer**
Special Session on Explainable AI for Biomedical Data at Italian Workshop on Neural Networks (WIRN), Vietri Sul Mare (Italy).
- Mar 2024 **Invited Reviewer**
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI).

May 2024 **Invited Reviewer**
IEEE Machine Learning for Signal Processing (MLSP) 2024.

Feb 2024 **Invited Reviewer**
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI).

Feb 2024 **Invited Reviewer**
IEEE World Congress on Computational Intelligence (WCCI) 2024.

Sep-Dec 2023 **Teaching Assistant**
Master's degree course in Circuits Theory, Sapienza University of Rome.

Jun 2023 **Invited Reviewer**
IEEE Machine Learning for Signal Processing Workshop (MLSP) 2023.

Jan 2023 **Invited Reviewer**
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI).

Dec 2022 **Invited Reviewer**
IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2023.

AWARDS

2024 **Winner of CINECA ISCRA-Class C project**
Project titled "Cross-Modal Brain Decoding: Generating Images and Video from Multimodal Neurological Data", Italian SuperComputing Resource Allocation (ISCRA), Italy.

2023 **Outstanding Reviewer**
33rd IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2023).

2022 **Progetti per Avvio alla Ricerca Tipo1**
Projet: "Interpretable attention-based deep learning models in the hypercomplex domain for breast cancer screening", Sapienza University of Rome, Italy.

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Spanish	B2	B2	B1	B2	B1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)