Michele Geronazzo

geronazzo.michele@gmail.com Padova, Italy mgero.github.io

Personal Details

ORCID: 0000-0002-0621-2704

Current Positions

- Since 12/2021: Associate Professor in Computer Engineering, Department of Engineering and Management, University of Padova, Italy.
- Since 2024: Member of the Human Inspired Technologies (HIT) Research Centre, University of Padova, Italy.
- Since 2021: Visiting Researcher, Dyson School of Design Engineering, Imperial College London, UK (coordination unit of SONICOM, Grant No. 101017743, H2020 RIA).

Previous Positions

- 2020-2021: Assistant Professor in Computer Science and Digital Media, Department of Humanities and Cultural Heritage, University of Udine, Italy.
- 2020: Research Associate, Audio Experience Design group, Dyson School of Design Engineering, Imperial College London, UK.
- 2017-2019: Postdoctoral Fellow, Technical Faculty of IT and Design, Aalborg University, Denmark.
- 2016-2017: Postdoctoral Researcher, Department of Neurosciences, University of Verona, Italy.
- 2014-2016: Postdoctoral Researcher, Department of Information Engineering, University of Padova, Italy.

Education and Key Qualifications

- 2014: Ph.D. in Information and Communications Technology, Department of Information Engineering, University of Padova. Supervisor: Federico Avanzini. Dissertation: Mixed Structural Models for 3D Audio in Virtual Environments.
- 2009, 2006: MSc and BSc in Computer Engineering, University of Padova, Italy.

Research Achievements

- Main Organizer of the IEEE VR workshop on Sonic Interactions in Virtual Environments (SIVE) since 2015.
- Book Editor of Sonic Interactions in Virtual Environments (Human-Computer Interaction Series, Springer Nature, Open Access, 2023).
- Contribution to international standardization projects in acoustics, including SOFA (Spatially Oriented Format for Acoustics) and The Princeton Headphone Open Archive (PHOnA).
- Research funded and developed with Cochlear R&D (UK), University of Verona, and Aalborg University across movement analysis, neurophysiological signal processing, and multimodal VR applications.
- In 2021, appointed Associate Professor at the University of Padova supporting mechatronics education with focus on cyber-physical systems and robotics.
- IEEE elevated membership to Senior Member status in 2019 for technological contributions to engineering.
- In 2020, started a SONICOM network of excellence at Imperial College London within the EIC Pathfinder Challenges scheme.
- Associate Editor roles: ACM Transactions on Applied Perception (2023), IEEE Open Journal of Signal Processing (2024), Multimedia Tools and Applications (2025).
- Chair of the first IEEE Signal Processing Society Listener Acoustic Personalization (LAP) Challenge edition (2023-2024).

Breakthrough Works

- M. Geronazzo, Strong and weak head-related transfer functions: The eHRTF analytical framework, JASA Express Letters, 2025.
- M. Geronazzo, R. Barumerli, P. Cesari, Shaping the auditory peripersonal space with motor planning in immersive virtual reality, Virtual Reality, 2023.
- M. Geronazzo et al., Superhuman Hearing - Virtual Prototyping of Artificial Hearing, IEEE Transactions on Visualization and Computer Graphics, 2020.
- M. Geronazzo et al., The impact of an accurate vertical localization with HRTFs on short explorations of immersive VR scenarios, IEEE/ACM ISMAR, 2018.
- M. Geronazzo et al., Do we need individual head-related transfer functions for vertical localization?, IEEE/ACM Transactions on Audio, Speech, and Language Processing, 2018.
- M. Geronazzo et al., Interactive spatial sonification for non-visual exploration of virtual maps, International Journal of Human-Computer Studies, 2016.
- D. Fantini et al., A Survey on Machine Learning Techniques for Head-Related Transfer Function Individualization, IEEE Open Journal of Signal Processing, 2025.
- A. G. Privitera, F. Fontana, M. Geronazzo, The Role of Audio in Immersive Storytelling: a Systematic Review in Cultural Heritage, Multimedia Tools and Applications, 2024.
- L. Picinali et al., The SONICOM Project: AI-Driven Immersive Audio, IEEE Signal Processing Magazine, 2022.

Knowledge Transfer

- 2024: Founder of ATENA Space s.r.l.s., a startup developing an XR-based digital ecosystem for e-health dental practices.
- 2023: ATENA Virtual Assistant for dental clinics, winner of the ICT category at Start-up Veneto 2023, Italy.

Peer Recognition

- Memberships of scientific societies: ACM and SIGCHI (since 2022), IEEE Senior Member (since 2017), EAA associate member and Technical Committee contributor (since 2013).
- Since 2011, delivered more than 20 talks (including invited talks and keynote lectures) at international and national conferences.
- Selected invited talks include Huawei Tech Arena Munich (2025), Huawei Munich Research Center (2022), Acoustics of Ancient Theatres Symposium (2021), ICA Aachen (2019), and Imperial College London (2019).

Honors and Funding

- 2022: Coordinating PI of MUR PRIN 2022 project S-TWIN (EUR 331,000).
- 2020: Co-proponent of Horizon 2020 SONICOM (Grant No. 101017743, EUR 1.8M to host organization, EUR 5.6M total).
- 2017: International Research Fellowship awarded by Aalborg University (EUR 150,000).
- 2017: Research Fellowship awarded by Brain Research Foundation Verona (EUR 21,000).
- 2015: Gino Sacerdote Prize for the best Ph.D. thesis on acoustics (Italian Association of Acoustics).
- 2014: Project manager of Personal Auditory Displays for VR, University of Padova (EUR 43,000).
- Since 2010: Six Best Paper or Poster awards at international conferences.

Additional Information

Organisation of Scientific Meetings: Since 2023 chair and main organizer of the IEEE SPS Listener Acoustic Personalization (LAP) Challenge; since 2015 organizing committee member of IEEE VR SIVE workshops (chair in 2018, 2020, 2022); local organizing committee of Sound and Music Computing 2011.

Institutional Responsibilities: Since 2024 board member of the Ph.D. School in Mechatronics and Product Innovation Engineering (University of Padova); 2020-2024 founder and board member of the Ph.D. School in Computer Science and Artificial Intelligence (University of Udine); 2017-2019 examinations board member for MSc Sound and Music Computing (Aalborg University).

Supervision of Graduate Students and Postdoctoral Fellows: Since 2023 PI of one postdoc and two research associates; since 2018 supervision of four Ph.D. students in psychoacoustics, VR, machine learning, and HCI, including collaborations with Imperial College London, University of Udine, and University of Padova.

Reviewing Activities: Editorial board and associate editor roles in Multimedia Tools and Applications (since 2025), IEEE Open Journal of Signal Processing (since 2024), ACM Transactions on Applied Perception (since 2023), and Frontiers in Virtual Reality (since 2019), with extensive conference and journal reviewing across IEEE VR, ISMAR, VRST, CHI, and top-tier audio and HCI venues.