



MAËVA GARNIER

Date of birth : 19/01/1980

Situation : married, 2 children

E-mail : maeva.garnier@gipsa-lab.fr

Phone : +33 4 76 57 50 61

Web page: <http://www.gipsa-lab.grenoble-inp.fr/~maeva.garnier>

RESEARCH INTERESTS

My research focuses on the notion of effort in speech production, the cognitive mechanisms underlying its optimization and regulation in a communicative situation, and how it relates to various oral communication disorders, such as dysphonia or stuttering.

KEYWORDS

- Speech adaptation
- Speech efforts
- Speech motor control
- Face-to-face interaction
- Multimodality
- Perception of timbre
- Dysphonia
- Stuttering
- Teacher's voice
- Singing voice
- Laboratory phonology
- Field exploration

EDUCATION

- 2023** HDR, University Grenoble Alpes. "Régulation et optimisation des efforts dans la communication parlée"
- 2007** Ph.D in Phonetic Acoustics, University of Paris VI. "Communiquer dans le bruit : de l'adaptation au forçage vocal"
- 2003** M.Sc. in Acoustics, Signal processing and Computer science applied to Music (ATIAM), University of Paris VI / IRCAM, France
- 2002** Undergraduate engineering degree (Electronics and signal processing), ENSERG, Grenoble INP

RESEARCH EXPERIENCE

- 2011-now** CNRS researcher in speech sciences (Section 34). GIPSA-lab, Grenoble
- 2010-2011** Post-doc in neuro-phonetics. GIPSA-lab, Grenoble
- 2007-2010** Post-doc in voice acoustics. Music Acoustics Group, UNSW, Sydney
- 2003-2007** Ph.D student in phonetic acoustics. IJLRA-LAM, University of Paris VI, Paris

COLLECTIVE RESPONSIBILITIES

- 2015-now** Co-head of the PCMD team (Speech Perception, Control, Multimodality and Dynamics)
- 2021-now** Board member of the AFCP (Association Francophone de la Communication Parlée)
- 2024-now** Member of EDISCE council (Doctoral School "Ingénierie pour la santé, la Cognition et l'Environnement", University Grenoble Alpes)
- 2024-now** Subject Editor for the journal Speech Communication
- 2024** Area chair for the conference Interspeech

RESEARCH PROGRAMS AND GRANTS

- 2024-2025** SEISM - "Sense of Effort in SensoriMotor adaptation" (CerCog@UGA, 10k€)
- 2023-2026** StutNLearn - "Sensorimotor learning and retention in people who stutter" (IRGA, UGA, Ph.D. grant + 23k€)
- 2018-2019** Qu'est-ce qu'il dit ? - Marqueurs verbaux et non-verbaux d'incompréhension (Pole Grenoble Cognition, 10 k€)
- 2015-2019** StopNCo - "Effort and Coordination in the production of stop consonants" (ANR JclC, 214 k€)
- 2013-2015** Phon&Stats - "Méthodes statistiques pour le traitement de données répétées et appariées en phonétique" (PEPS CNRS, 20 k€)
- 2013-2014** Occlustrain - "Articulation efforts of stop consonants production" (UGA, 10k€)
- 2012-2017** PedaVox - "Impact of a one-day prevention program on the vocal health of primary school teachers" (support of MGEN, Grenoble's school academy)

SUPERVISION

- 5 Ph.Ds** T. Bourne (2009-2015); T. Cattelain (2015-2019); F. Roche (2017-2020); M. Jacquelin (2022-now); E. Ronayette (2023-now)
- 2 Post-docs** A. Remacle (2014-2016); A. Slis (2018-2019)
- Others** 21 M.Sc projects, 5 memoires of logopedics

TEACHING

Various teaching activities in voice acoustics and physiology, phonetics, psychoacoustics, signal processing

Various education programs: linguistics, cognitive sciences, speech therapy, (sound)engineering, audio-prosthesis

Currently ~ 50 hours of lecture per year to the Master in Cognitive Sciences and the Linguistics department of the University of Grenoble Alpes (UGA).

INDUSTRIAL PARTNERSHIPS

- VOGO (Bernin, 38) - CIFRE Ph.D. of M. Jacquelin "Modeling of the vocal effort of sports referees by deep learning methods"
- Arturia (Montbonnot, 38) - CIFRE Ph.D of F. Roche "Perception and control of the timbre of synthetic musical sounds "

OTHER EXPERTISE ACTIVITIES

- Reviewer for several international journals and conferences in in acoustics, speech sciences and cognitive sciences
- Reviewing of 3 research projects for the French ANR and its Czech equivalent
- Reviewer or examiner of three Ph.D theses, and CSI member of two Ph. D theses
- Member of 3 recruitment panels (INRIA Nancy, UFR LLASIC Grenoble)

SCIENTIFIC PRODUCTIONS

Publication of 21 articles in international peer-reviewed journals, 7 book chapters and 24 peer-reviewed articles in the proceedings of international conferences. 38 scientific presentations in international conferences and 9 invited talks.

Selected publications:

- Garnier, M. & Dohen, M. (in revision). Clarification and correction of French stop consonants, *Journal of the Acoustical Society of America*
- Garnier, M., Le Ferrand, E. & Ringeval, F. (2023) Verbal and nonverbal feedback signals in response to increasing levels of miscommunication. *In Proc. Interspeech, Dublin, Ireland*
- Slis, A., Savariaux, C. Perrier, P. & Garnier, M. (2023). Rhythmic tapping difficulties in adults who stutter: a deficit in beat perception, motor execution, or sensorimotor integration? *PlosOne* 18(2), e0276691
- Garnier, M., Smith, J. & Wolfe, J. (2022). Lip hyper-articulation in loud voice: Effect on resonance-harmonic proximity, *Journal of the Acoustical Society of America* 52(6), 3695-3705.
- Roche, F., Hueber, T., Garnier, M., Limier, S. & Girin, L. (2021). Make That Sound More Metallic: Towards a Perceptually Relevant Control of the Timbre of Synthesizer Sounds Using Variational Autoencoder, *Transactions of the International Society for Music Information Retrieval (TISMIR)* 4, 52-66
- Garnier, M., Ménard, L. and Alexandre, B. (2018) "Hyper-articulation in Lombard speech: An active communicative strategy to enhance visible speech cues? *Journal of the Acoustical Society of America* 144(2), 1059-1074.
- Remacle, A., Garnier, M., Gerber, S., David, C. et Petillon, C. (2018) Vocal Change Patterns During a Teaching Day: Inter- and Intra-Subject Variability, *Journal of Voice* 32 1, 57-63.
- Garnier, M., Lamalle, L. et Sato, M., (2013), Neural correlates of phonetic convergence and speech imitation, *Frontiers in Psychology* Article 600
- Bourne, T., et Garnier, M. (2012), Physiological and acoustic characteristics of four qualities in the female music theatre voice. *Journal of the Acoustical Society of America* 131 2, 1586-1594.
- Garnier, M., Henrich, N. et Dubois, D. (2010), Influence of sound immersion and communicative interaction on the Lombard effect, *Journal of Speech, Language and Hearing Research* 53 3, 588-608.

See my website for an exhaustive list of my publications.