

Nov.2022 - Now **Postdoc. Position**, *Action Lab, Dept. of Biology, Northeastern University, Boston, US*

Education

- 2018-2022 **PhD in Cognitive Sciences, Psychology and Neurocognition**, *Gipsa Lab (Grenoble Images Parole Signal Automatique), Grenoble Alpes University, France*, Visiting scholar from March to June 2018 at the ZAS (Leibniz-Zentrum Allgemeine für Sprachwissenschaft), Berlin, Germany
- 2017-2018 **M.S. in Human Movement Sciences**, *University of Montpellier, France*, Master thesis at EuroMov and Montpellier University Hospital
- 2015-2017 **M.S. in Methods for Complex Data Analysis**, *University of Cergy-Pontoise, France*, with merit, Master thesis at the ETIS Lab (Equipes Traitement de l'Information et Systèmes)
- 2014-2016 **Diploma in Drama Studies**, *Regional Conservatory of Cergy*
- 2013-2014 **M.S. in Economics and Statistics**, *Toulouse School of Economics, France*, with merit, Internship at group AVISIA, Paris, France
- 2012-2013 **B.S. in Economics and Mathematics**, *Toulouse School of Economics, France*, with merit, Internship at the National Institute for Health and Medical Research, Marseille, France

Peer-reviewed Journal Papers

1. Edraki, M., **Serré, H.**, Maurice, P. & Sternad, D. (under review). Limitations of human force control when physically tracking robot movements. *International Journal of Robotics Research*
2. Raffard, S., Lozano-Goupil, J., Schmidt, R.C., Marin, L., Boiché, J., Lebrun, C., Aubin, L., Decombe, A., **Serre, H.**, Capdevielle, D., & Mostafaoui, G. (2025, accepted). Attitudes, self-efficacy and behavioral intentions to exercise with a socially assistive robot in individuals with schizophrenia: an exploratory study. *International Journal of Robotics Research*
3. Lozano-Goupil, J., Marin, L., Aubin, L., Decombe, A., **Serré, H.**, Capdevielle, D., Mostafaoui, G. & Raffard, S. (2024). Impaired perception of a partner's synchronizing behavior reduces positive attitude toward humanoid robot in schizophrenia patients. *Schizophrenia Research*, 264, 511-518, ISSN 0920-9964
doi:10.1016/j.schres.2024.01.027
4. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2022). Leg movements affect speech intensity. *Journal of Neurophysiology*, 128(5), 1106-1116, doi:10.1152/jn.00282.2022

5. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2021). Speech breathing: variable but individual over time and according to limb movements. *Annals of the New York Academy of Sciences*, 1505(1), 142-155, doi:10.1111/nyas.14672
6. Aubin, L., Mostafaoui, G., Amiel, C., **Serré, H.**, Capdevielle, D., de Menibus, M.H., Boiché, J., Schmidt, R., Raffard, S. & Marin, L. (2021). Study of coordination between patients with schizophrenia and socially assistive robot during physical activity. *International Journal of Social Robotics*, 1-16, doi:10.1007/s12369-021-00750-4
7. Aubin, L., Mostafaoui, G., Schmidt, R., **Serré, H.** & Marin, L. (2021). Effects of unintentional coordination on attentional load. *Human Movement Science*, 80, 102880, doi:10.1016/j.humov.2021.102880

■ Book Chapters

1. **Serré, H.** & Rochet-Capellan, A. (2024). Body-grounded speech rhythm: ubiquitous interactions between speech, breathing, and limb movements, In L. Meyer & A. Strauss (eds.), *Rhythms of Speech and Language*, Cambridge University Press, <http://languagecycles.com/rosal/>)

■ Papers in Preparation

1. **Serré, H.**, Harrigian, K., Park, S.W. & Sternad, D. Effects of age and musical training on motor timing: robust results from a field experiment.
2. **Serré, H.**, Edraki, M. & Sternad, D. Preferred period and resonance tuning in a rhythmic motor task: long-term stability and cognitive and mechanical contributions.
3. **Serré, H.**, Nguyen, T., Song, J-H. & Sternad, D. Stability in emergent vs enforced motor patterns and its effect on time Perception.

■ Poster Presentations at Conferences

1. **Serré, H.**, Nguyen, T., Song, J.H. & Sternad, D. (2025). Stability in emergent vs enforced motor patterns and its effect on time perception. *33rd Annual Meeting of the Neural Control of Movement Society*, Panama city, Panama, April 28-May 2
2. **Serré, H.**, Edraki, M. & Sternad, D. (2024). Preferred period and resonance tuning in a rhythmic motor task: long-term stability and cognitive and mechanical contributions. *56th Annual Meeting of the Society for Neuroscience*, Chicago, IL, US, October 5-9
3. **Serré, H.**, Nguyen, T., Song, J.H. & Sternad, D. (2023). Emergent motor timing enhances perception of temporal intervals. *32nd Annual Meeting of the Neural Control of Movement Society*, Victoria, Canada, April 18-21

4. **Serré, H.**, Fuchs, S., Dohen, M. & Rochet-Capellan, A. (2020). Speaking while moving: does the head compensate for the hands not being able to move. *12th International Seminar on Speech Production*, New-Heaven, RI, US, December 14-18, Haskins Press: <https://issp2020.yale.edu/ProcISSP2020.pdf>
5. **Serré, H.**, Weston, H., Rochet-Capellan, A., Dohen, M. & Fuchs, S. (2020). Speaking during rhythmic motions of feet vs hands: how do speech and limb movements affect each other. *Conference on Dance Data, Cognition and Multimodal Communication*, Lisbon, Portugal, September 19-21

■ Oral Presentations

1. **Serré, H.**, Nguyen, T., Song, J.H. & Sternad, D. (2025). Stability in emergent vs enforced motor patterns and its effect on time perception. *33rd Meeting of New England Sequencing and Timing*, Storrs, CT, US, April 5
2. **Serré, H.**, Edraki, M. & Sternad, D. (2024). Preferred period and resonance tuning in a rhythmic motor task: long-term stability and cognitive and mechanical contributions. *32nd Meeting of New England Sequencing and Timing*, Storrs, CT, US, April 1
3. **Serré, H.**, Nguyen, T., Song, J.H. & Sternad, D. (2023). Emergent motor timing enhances perception of temporal intervals. *31st Meeting of New England Sequencing and Timing*, Storrs, CT, US, March 31
4. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2022, June). Leg movements affect speech intensity. *2nd Workshop on Measurement of Speech Respiration*, Saarbrücken, Germany, June 9-10
5. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2021). Assessing breathing individuality in the interaction between speech and limbs movement. Invited speaker at *Les Séminaires de Recherches en Phonétique et Phonologie*, Paris, France, December 3
6. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2021). Assessing speech breathing personality across limb movements. *Les Séminaires du Pôle Parole et Cognition*, Grenoble, France, January 13
7. **Serré, H.**, & Rochat, N. (2021). Tutorial on the Etisense plethysmography system (advantages and limits) and how to record with an Optitrack system, the Etisense plethysmography system and audio in synchrony. *Workshop on Recording and Measuring Motions of the Articulators, Limbs and the Respiratory System*, Zürich, Switzerland, January 7-8
8. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2020). Speech and breathing in different conditions of limb movements and over time, Invited speaker at the *1st Workshop on Measurement of Speech Respiration and Speech Preparation Phases*, Saarbrücken, Germany, February 18-19

9. **Serré, H.**, Dohen, M., Fuchs, S., Gerber, S. & Rochet-Capellan, A. (2019). Speech and breathing in different conditions of limb movements and over time. *SEFOS 2019-International Seminar on the Foundations of Speech*, Sonderborg, Denmark, December 1-3

Teaching and Assistive Responsibilities

Jan.2024- Now	Assistance in financial administration of the Action Lab , Northeastern University, Boston, MA, US
Spring 2023	Multidisciplinary Approaches to Motor Control , BIOL5601, Dept. of Biology, Northeastern University, Boston, MA, US
Fall 2021	Augmented Cognition , WPMGCOA2, École Nationale Supérieure de Physique, Électronique et Matériaux (INP Phelma), Grenoble, France
Fall 2020	Statistics and Surveys , LSST1M07, Dept. of decision statistics, Institut Universitaire de Technologie (IUT) de Grenoble, France
Fall 2020	Descriptive Statistics , LSX0L002, Dept. of decision statistics, Institut Universitaire de Technologie (IUT) de Grenoble, France
Fall 2019	Statistics and Surveys , LSST1M07, Dept. of decision statistics, Institut Universitaire de Technologie (IUT) de Grenoble, France
Fall 2019	Descriptive Statistics , LSX0L002, Dept. of decision statistics, Institut Universitaire de Technologie (IUT) de Grenoble, France

Technical and Language Skills

Data acquisition	Simultaneous signal recording with motion capture (Qualisys; Vicon; Optitrack), grip force sensor, speech recording, and inductance plethysmography system; psychophysics setup
Coding	R, MATLAB, Python, Praat, LaTeX
Language	French (Native speaker), English (Fluent), Spanish (Basic communication skills)

Leadership and Community Engagement

2023-Now	Active member of the Slaughter House Dance Troupe , Boston, US
2018-2022	Member of the CREARC (Center for Creation, Research and Cultures), and Mecanic Dance Style, Grenoble, France
2019-2020	President of GipsaDoc , PhD association for promoting social cohesion, Grenoble, France
2017	Stage direction of Publikumsbeschimpfung und andere Sprechstücke , Peter Handke, Théâtres des Louvrais, National Stage of Cergy-Pontoise, France
2015	Acting in L comme Litote , Julien Bismuth, Palais de Tokyo, Paris, France