Cristina Giossi

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Dept. Of Mathematics and Informatics
Universitat de les Illes Balears, Palma, Spain

Education

Ph.D. in Information and Communication Technology ***2021-Present***
Emphasis: Computational and Cognitive Neuroscience
Universitat de les Illes Balears, Palma, Spain

M.D. in Bioengineering ***2019-2020***
Emphasis: Neuroengineering and Bio-ICT
Università degli Studi di Genova, Genova, Italy

B.D. in Biomedical Engineering ***2014-2019***
Università degli Studi di Genova, Genova, Italy

Peer-reviewed Publications

C. Giossi, J. Bahuguna, J. E. Rubin, T. Verstynen, C. Vich (2024, under review). *Arkypallidal neurons in the external globus pallidus can mediate inhibitory control by altering competition in the striatum.*

M. Clapp - J. Bahuguna - **C. Giossi**, J. E. Rubin, T. Verstynen, C. Vich (2024). *CBGTpy: an extensible cortico-basal ganglia-thalamic framework for modeling biological decision making.* PLOS ONE.

Giossi, C., Rubin, J. E., Gittis, A., Verstynen, T., & Vich, C. (2024). *Rethinking the external globus pallidus and information flow in cortico-basal ganglia-thalamic circuits.* European Journal of Neuroscience, 1–16.

C. Vich, **C. Giossi**, P. Massobrio, A. Guillamon (2023), *Effects of short-term plasticity in UP-DOWN cortical dynamics.* Communications in Nonlinear Science and Numerical Simulation, Volume 121, 107207, ISSN 1007-5704.

Posters

C. Giossi, J. Bahuguna, J. E. Rubin, T. Verstynen, C. Vich (2024). *GPe arkypallidal neurons can mediate inhibitory control by disrupting competition in the striatum.* Cognitive and System Neuroscience Conference (COSYNE2024), Lisboa, Portugal.

C. Giossi, J. Bahuguna, J. E. Rubin, T. Verstynen, C. Vich (2023). *A computational model of the stop-signal task reveals cortico-basal ganglia-thalamic control modules for action*

cancelation. International Basal Ganglia Society Conference 2023 (IBAGS2023), Stockholm, Sweden.

C. Giossi, J. E. Rubin, T. Verstynen, C. Vich (2022). *Braking ongoing actions: circuit-level mechanisms of adaptive decision-making*. Swedish Basal Ganglia Society Conference 2022 (SWEBAGS2022) (online).

Stays in Public or Private R&D centres

Stay of research at Italian Institute of Technology ***February 2024***
Genova, Italy | Supervisor: Raffaella Tonini, Ph.D.
Neuromodulation of Cortical and Subcortical Circuits Lab.

Stay of research at Carnegie Mellon University ***August 2023***
Pittsburgh, PA, USA | Supervisor: Timothy Verstynen
Dpt. of Psychology

Stay of research at Carnegie Mellon University ***February 2023***
Pittsburgh, PA, USA | Supervisor: Timothy Verstynen
Dpt. of Psychology

OCNC Computational Neuroscience Summer School ***June 2022***
Institute of Science and Technology Graduate University (OIST), Okinawa, Japan

Internship at Radboud University ***February-August 2020***
Nijmegen, Netherlands | Supervisor: Paul E. Tiesinga
Dpt. of Neuroinformatics

Teaching

2024-2025 Universitat de les Illes Balears. **Mathematics I.** Degree in Chemistry.
2023-2024 Universitat de les Illes Balears. **Mathematics I.** Degree in Chemistry.
2022-2023 Universitat de les Illes Balears. **Mathematics I.** Degree in Chemistry.

Relevant Skills

Languages: English (C1), Spanish (C1), Catalan (A2) and Italian.
Programming: Python (fluent), C (mid-level), C++ (basic), Matlab (mid-level).