

Curriculum Vitae

Pablo Martínez Cañada is a Marie Skłodowska-Curie Postdoctoral Fellow at **Istituto italiano di tecnologia** (IIT), Genova (Italy), and a guest scientist at the Excellence Department of Neural Information Processing at UKE, Hamburg. His goal is to develop rigorous mathematical tools to disambiguate neural mass signals and robustly interpret them in terms of specific neural features (e.g., excitation/inhibition ratio). Such features are key elements in determining the neural microcircuit configuration and have been documented to contribute to important brain disorders such as schizophrenia and Autism Spectrum Disorders (ASD). Understanding the origins of large-scale neural signals may increase the usability of them to diagnose brain disorders and predict treatment outcome success.

SELECTED PUBLICATIONS

2021

Martínez-Cañada P., Ness T. V., Einevoll G. T., Fellin T., Panzeri S.
Computation of the electroencephalogram (EEG) from network models of point neurons.
PLoS Computational Biology
DOI 10.1371/journal.pcbi.1008893

2020

Trakoshis S., Martinez-Cañada P., Rocchi F., Canella C., You W., Chakrabarti B., Ruigrok A.N., Bullmore E.T., Suckling J., Markicevic M., Zerbi V., Bailey A.J., Baron-Cohen S., Bolton P.F., Bullmore E.T., Carrington S., Catani M., Chakrabarti B., Craig M.C., Daly E.M., Deoni S.C., Ecker C., Happe F., Henty J., Jezzard P., Johnston P., Jones D.K., Lai M.-C., Lombardo M.V., Madden A., Mullins D., Murphy C.M., Murphy D.G., Pasco G., Ruigrok A.N., Sadek S.A., Spain D., Stewart R., Suckling J., Wheelwright S.J., Williams S.C., Baron-Cohen S., Gozzi A., Lai M.-C., Panzeri S., Lombardo M.V.
Intrinsic excitation-inhibition imbalance affects medial prefrontal cortex differently in autistic men versus women
eLife, vol. 9
DOI 10.7554/eLife.55684

2018

Martínez-Cañada P., Mobarhan M.H., Halnes G., Fyhn M., Morillas C., Pelayo F., Einevoll G.T.
Biophysical network modeling of the dLGN circuit: Effects of cortical feedback on spatial response properties of relay cells
PLoS Computational Biology, vol. 14, (no. 1)
DOI 10.1371/journal.pcbi.1005930