



**SLING** Efficient algorithms for sustainable machine learning

Mon, February 7th, 2022, 3:00 p.m., DIBRIS - Room 705, via Dodecaneso 35, Genova.

# Analysis and Learning

## Brain imaging with magneto/electro-encephalography: from source localization to connectivity estimation

### Abstract.

Electroencephalography and Magnetoencephalography (EEG/MEG) are two powerful techniques recording signals from the brain at a one-millisecond resolution. EEG/MEG data are very rich in information and are currently used in many contexts, ranging from basic neuroscience to clinical applications.

In this talk I will consider two intertwined problems related to the analysis of EEG/MEG data: (1) the source localization problem, amounting to estimating the neural currents underlying recorded time series; (2) the connectivity estimation problem, amounting to characterizing the interactions between spatially distinct areas.

**Speaker**

**Alberto Sorrentino**

Università di Genova



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Alberto Sorrentino is Associate Professor of Numerical Analysis at the Mathematics Department (DIMA) of the University of Genoa, Italy, and CEO of Bayesian Estimation for Engineering Solutions, a startup recently founded as a University spinoff. His research is focused on the development of Bayesian approaches and Monte Carlo methods, with application in neuroimaging and air quality monitoring.