

## **Decoding motor plans and other from coarse grained intracortical recordings**

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Understanding how brain network dynamics underlies our cognitive functions is one of the most challenging quest of modern sciences. This is in part due to the formidable complexity of biological networks composing together heterogeneous elements with a multiscale organization. Here, I will describe a 'middle-out' approach focused on the 'mesoscopic' characterization of local and homogenous population of neurons whose activity is accessible via coarse grained intracortical recordings. I will show that this is a privileged point of view to inspect the interplay between different spatial and temporal scales involved in the network processing of cognitive functions like motor decision.