Visualizing neural activity in space and time

Processes in our brain underlie everything we are and we know. However, neural processing is notoriously difficult to understand. In particular, for the human brain some technologies have bad temporal resolution, others have poor spatial resolution. Hence, it has not been possible to visualize how basic processing in the human brain evolves over space and time.

From our collaborators we have a dataset which includes both time and space with good resolution. These recordings are done invasively in the human brain and therefore give a unique window into happenings in our brain.

The task is to take this excellent data and create an application where one could see how these activity patterns evolve over space and time. Currently there is nothing like that available in the world. The project requires good graphics and data handling skills; it is strongly recommended to take computer graphics course, and start doing this project as a course project.

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