Third meet notes.

We met with Matias.

Started the meeting by checking in on everybodys progress.

PING 1 is on the third milestone. They have proof of concept.

PING2 is now starting out since most of their group has been traveling.

Connectome fitting team has made good progress on their milestones. They have reached milestone 2.

Matias told us to always provide everything to the research team on slack. And we should remember not to get stuck on any issue. Always use the slack.

The format of the final report is Matias`s teams deck. We went through all the main points of the Deck. Matias instructed us to make similar decks and to post those into slack so that everyone can see everybody else’s progress.

PING 1 group had questions on how to move to the third phase. When creating a binodal system, should the systems` communication become uni- or bidirectional?

In a kuramoto system this question has several consequences: In a unidirectional system, the phase lag correlation of the system will be the same as in a birectional one. The phase amplitude correlation, though, will peak strongly near the critical phase and will lag strongly in the subcritical area. In a birectional system, both correlations will form a symmetric graph.

Take-home is that the PING groups can choose their poison, whether they wish to go with uni- or bidirectional or a combination thereof. Matias will share research on a PING-like model to help further research.

Connectome fitting group is wondering what kind of data are they to use for their fitting.

Their approach is to first create a small, 3 or 5 node, topology to create some time series, and then compare that to real data. The model should be scalable. Finally the goal could be to multiply the nodes with some gained weights to simulate some ground truth and present that.

BE RESPONSIBLE WITH TRITON!!!

Connectome has been done previously by creating a model that produces an time-averaged functional connectome model. The model itself is based on SC. The question here is to move on a more local level, starting from the very beginning. The wider question is to answer whether the local level error correction of weights approach can help make the larger scale models more precise. Also then the real-world question to answer is how long can data gained from the brain be predicted for. Matias`estimate was about two cycles.

Matias mentioned something that could be done is to take Alinas fitting pipeline and plug the groups created model into it.

Attendance: Henrietta, Sanniina, Teemu, Joel, Riikka, Netta, Joonas, Patrik, Sanni, Lauri, Eliecer