

## Schedule (2nd Week)

Student Seminar, Room 117

July 17 (Tuesday)

10:00-

Ashley Albright (UC Berkeley)

Md. Maruf Hossain (UTokyo)

13:30-

Sergei Burkin (UTokyo)

July 18 (Wednesday)

10:00

Shuko Nojiri (Juntendo University)

Asako Takashima (UTokyo)

July 19 (Thursday)

10:00-

Masataka Iwai (UTokyo)

Ryo Nojima (UTokyo)

13:30-

Nils Kohring (UTokyo)

The Room 052 is available for free discussions.

There will be Tea at Common Room from 15:00 to 15:30 on each day.

Titles and Abstracts:

Md. Maruf Hossain

Title: State-space model estimation of a noisy time series data using recurrent neural network

Abstract: Neural networks provide a flexible way of capturing the underlying dynamics of a system from observed time series data. Correct model identification becomes difficult because increasing or decreasing the nodes and layers of a neural network may overfit or underfit the noisy data, ending up with a wrong model. To address this issue, the i.i.d. noise from the observed data is removed by optimizing the autocorrelation coefficients at different lags. It is showed that a recurrent neural network can detect the correct state-space model of the system using the denoised data.