1154-92-772	**Wei Lin***, wlin@fudan.edu.cn. *Time series analytics: Networks reconstruction and dynamics prediction.*

In this talk, I will introduce two model-free frameworks of dynamical time series analytics. One framework is to detect the causation interactions among a large group of dynamical variables, which probably recovers a network hidden in a real-world system we are concerned. The second framework is to make a forecast or future prediction based only on short-term and high-dimensional time series, which is usually believed to be a challenging task. Both frameworks use the advantages of Taken's embedding techniques, which reveals that utilization of dynamical system theory is more likely to exploit useful information from time series not only from the models but also from the real-world systems. (Received September 10, 2019)