

System Identification -- finding the generating system from observed inputs and outputs

Lennart Ljung, Linköping University

ljung@isy.liu.se

An important inverse problem in engineering is to construct mathematical models of dynamical systems from observed input and output sequences. This is like the inverse of simulation. The field is called System Identification in the Automatic Control community- This talk will describe the underlying principles and practical tools for identification. It will also place the area on a global map among other model-estimating communities like Statistics, Statistical Learning Theory and Machine Learning.