

## **Statistical Inference for High-Dimensional Data: New Challenges brought by Life Sciences and other Research Areas**

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The past century, sometimes dubbed the “age of information”, saw incredible growth in computers’ processing speed and memory capacity. Now that computational power is helping us forge ahead into a new “age of biology” or, more broadly, an era of the Life Sciences. Biotechnologies now enable massive amounts of data to be collected about living cells and organisms. A major challenge in the analysis of such data sets is their size: a very small number of observations, of the order of tens or hundreds, versus thousands (or more) of attributes or features per each observation. Typical examples include microarray gene expression experiments or data coming from genome-wide association studies. In the talk, an up-to-date, albeit brief, overview of the area of supervised learning for such problems will be provided.