Model Selection in High-Dimensional Regression: Some Results and Extensions

Felix Abramovich, Tel-Aviv University

We start from a standard Gaussian linear regression, where the number of possible predictors might be large relative to the available sample size. We review various existing model selection criteria and discuss their properties. In the second part, several possible extensions of model selection in high-dimensional regression (unknown variance, additional structural constraints, GLM) will be presented. Computational issues will be also (briefly) discussed.

The talk is based on joint work with Vadim Grinshtein, The Open University of Israel.