

STATISTICAL ANALYSIS FOR ARTIFICIAL INTELLIGENCE (5 ECTS, S1 93001369):

Fundamentals of

Probability Theory Probability: Stochastic Processes and Statistical Inference;

Fundamentals of Machine Learning. Parameter Estimation: Maximum Likelihood Estimation; Cramer-Rao Bound and Fisher's Information; Signal Parameter Estimation.

Bayesian

Estimation: Maximum A Posteriori Estimation; Least Squares Estimation; Regression;

Optimal Filtering; Prediction; Adaptive Systems; Learning. Hypothesis Testing; Bayesian

Testing; Detection; Classification. Case studies in statistical signal processing: adaptive systems in communications, regression and event classification