



Ferenc's research experience

theory

reproducing kernels

Bayesian kernel machines

using kernel trick as a construction tool for Bayesian nonparametrics

temporal dimensionality reduction

extension of kernel PCA to time series analysis

active learning

BALD

Bayesian Active Learning by Disagreement

Gaussian process classification

near-exact information theoretic active learning

pairwise preference learning

binary preference prediction as special case of probit GP classification

approximate inference

Loss calibrated approximate inference

herding and maximum mean discrepancy for approximate inference

applications

Web Analytics (Yahoo!)

Bayesian modelling of user intentions and navigational behaviour

Combining information from multiple sources, such as search and web analytics logs

cognitive psychology

inferring complex, mental representations from discrete choice data

optimal design of experimental stimuli

multi-task learning: predicting what subject does in experiment B looking at only what she did in experiment A

experimental quantum physics

cleverly configuring experimental apparatus for 10x more effective experiments

binary preference elicitation

effectively learn user's profile from binary preference judgments or rankings (e.g. search results)

population genetics (Oxford)

approximate inference for a population genetics model of central interest