OBL - Statistical Machine Learning: On-Line Bayesian Learning

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**Job description:** We are looking for a summer trainee interested in doing basic research in statistical machine learning. Our core expertise is learning from complex and multiple data sources using Bayesian methods. The new "deluge of data" scenario in science and the need of online data-analysis, demands Bayesian methods to cope with high-dimensional big-data sets with millions or more samples creating a bottleneck for popular methods like Gibbs sampling and variational approximation. In this project, the student will explore asynchronous parallel and sequential schemes for Bayesian methods adapting them for parallel and distributed computing frameworks, with a concentration on rigorous theoretical justification, new method development and successful application to challenging data-sets. This project will give a quick introduction to the exciting field of statistical machine learning.

**Additional information:** [http://research.ics.aalto.fi/mi/research.shtml](http://research.ics.aalto.fi/mi/research.shtml)