

February 22

Thursday

Colloquium

**Faculty of
Computer Science,
HSE**



Eric Moulines

École Polytechnique

**Perturbed Proximal
Gradient Algorithms**

We study a version of the proximal gradient algorithm for which the gradient is intractable and is approximated by Monte Carlo methods (and, in particular, Markov Chain Monte Carlo). We derive conditions on the step size and the Monte Carlo batch size under which convergence is guaranteed: both increasing batch size and constant batch size are considered. We also derive non-asymptotic bounds for an averaged version. Our results cover the cases of biased and unbiased Monte Carlo approximation. To support our findings, we discuss the inference of a sparse generalized linear model with random effect and the problem of learning the edge structure and parameters of sparse undirected graphical models.

February 22, 18.10–19.30
Kochnovskii proezd, 3, room 317

Register at <https://cs.hse.ru/en/colloquium>

