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“Acceleration in Stochastic Optimisation”

Abstract
Stochastic gradient descent (SGD) is the engine beneath the hood of many machine learning algorithms, but research into its acceleration is still in its infancy. It has long been known that Nesterov’s accelerated gradient descent achieves the optimal convergence rate in the deterministic setting, but such methods are difficult to apply to stochastic gradient descent. In this talk, we will discuss existing accelerated SGD algorithms, tricks to achieve the optimal convergence rate, and ongoing research into acceleration methods for SGD.

Elena Resmerita and the Department of Mathematics look forward to seeing you at the talk!