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Machine Learning helping Monte-Carlo collider simulations

Monday 11 March 2019 16:10 (20 minutes)

The high-energy community recently witnessed the first attempts at leveraging machine (deep) learning techniques for improving the efficiency of the numerical Monte-Carlo integrations that lie at the core of most high-energy physics simulations.
The first part of my talk will characterise the various type of integrations necessary in these simulations as well as the type of improvements that could significantly impact their efficiency.
The second part will focus on reviewing the objectives and achievements of the first attempts at applying modern machine learning techniques in this context.

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