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Learning Feynman integrals from differential equations with neural networks

Tuesday 16 April 2024 15:00 (30 minutes)

I present a new approach for evaluating Feynman integrals numerically. We apply the framework of physics-informed deep learning to train neural networks to approximate the solution to the differential equations satisfied by Feynman integrals. I discuss a proof-of-concept implementation, and showcase a number of one- and two-loop examples.

Primary author: ZOIA, Simone (CERN)

Presenter: ZOIA, Simone (CERN)

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