GAN based event subtraction for Monte Carlo methods

Wednesday, 15 January 2020 15:15 (20 minutes)

We propose a novel method to subtract distributions represented by samples. We train a subGAN that takes event samples from two distributions to generate samples filling the difference between the distributions. While the algorithm can have various applications for Monte Carlo methods, we illustrate its performance for Z + jets NLO event generation.

Primary authors: BUTTER, Anja; PLEHN, Tilman; WINTERHALDER, Ramon (Universität Heidelberg)

Presenter: BUTTER, Anja

Session Classification: Generative Models