

Séminaire LAL

Mr. Michael Kagan
(SLAC)

Mardi 10 janvier 2017 à 11h00

Deep Learning and Computer Vision in High Energy Physics

Recent advances in deep learning have seen great success in the realms of computer vision, natural language processing, and broadly in data science. However, these new ideas are only just beginning to be applied to the analysis of High Energy Physics data.

In this talk, I will discuss developments in the application of computer vision and deep learning techniques to the analysis and interpretation of High Energy Physics data, with a focus on the Large Hadron Collider.

I will show how these state-of-the-art techniques can significantly improve particle identification, aid in searches for new physics signatures, and help reduce the impact of systematic uncertainties.

Furthermore, I will discuss methods to visualize and interpret the high level features learned by deep neural networks that provide discrimination beyond physics derived variables, adding a new capability to understand physics and to design more powerful classification methods in High Energy Physics.

Salle 101 - Bât. 200, Orsay

Thé et café seront servis 15 mn avant le séminaire

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