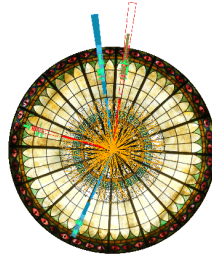


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Extracting the d/u ratio with the Self Organizing Maps Algorithm

I will discuss the application of an alternative type of neural network, the Self-Organizing Maps (SOMs), to extract parton distribution functions from various hard scattering processes. SOMs provide a complementary algorithm to NNPDFs yielding a parametrization that is free from the bias implicit in choosing specific analytic forms. At the same time it enables us to extrapolate to kinematical regions where data are not available.

I will show in particular the extraction using SOMs of the ratio d/u in the $x=1$ limit.

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Presenter: Prof. LIUTI, Simonetta (University of Virginia)

Track Classification: WG1 Structure Functions and Parton Densities