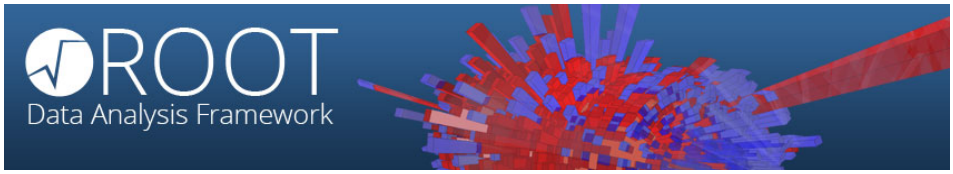

Contribution ID: **48** Type: **Presentation**

How to bring Modern Machine Learning to HEP

Thursday, 17 September 2015 14:00 (20 minutes)

Modern Machine Learning algorithms are currently used in almost all big-data fields: search engines, finance, health diagnostics, image and video recognition, and natural language processing, to name but a few. There is clear evidence that HEP, being a big-data field, will substantially benefit from Modern Machine Learning applications in various areas. TMVA, integrated within ROOT, provides the first point of contact for people in HEP to use machine learning, and it has been used extensively and successfully in HEP. In the last decade, since the launch of TMVA, there have been many essential breakthroughs in the machine learning community, such as Deep Learning. Continued steep improvement in terms of performance, automation, speed, robustness and applicability are expected in the near future (i.e. the LHC lifetime). A proposal will be presented to put HEP in a position to capitalise on the many opportunities offered by Modern Machine Learning.

Presenter: GOLLING, Tobias (Universite de Geneve (CH))

Session Classification: Presentations