Contribution ID: **211** Type: **Talk**

Machine Learning (CMS)

Saturday 5 September 2020 17:20 (25 minutes)

Advanced machine learning methods are increasingly used in CMS physics analyses to maximize the sensitivity of a wide range of measurements. The landscape is diverse in terms of both methods and applications. Deep learning methods, from recurrent LSTM architectures for classification tasks to deep autoencoders for data quality monitoring, have greatly improved the physics results delivered from the CMS experiment. Algorithms are developed both for collaboration-wide use as well as for individual physics analyses. Many marquee results from CMS, like the measurement of the Higgs boson's properties in the diphoton decay channel, exploit a multitude of different machine learning algorithms to reduce the uncertainties on measured properties of the Higgs boson.

Is this abstract from experiment?

Yes

Internet talk

Yes

Name of experiment and experimental site

CMS, CERN

Is the speaker for that presentation defined?

Yes

Details

Samuel May
University of California, San Diego, USA

Author: MAY, Samuel (Univ. of California San Diego (US))

Presenter: MAY, Samuel (Univ. of California San Diego (US))

Session Classification: Mini-workshop on Machine Learning for Particle Physics