# XII International Conference on New Frontiers in Physics



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Type: Talk

# **CMS: Machine Learning**

Wednesday, July 12, 2023 5:40 PM (20 minutes)

This talk provides an overview of the applications of machine learning (ML) techniques within the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider (LHC). The CMS experiment generates vast amounts of data, and machine learning has emerged as a powerful tool for data analysis, event reconstruction, anomaly detection, and optimization. In this talk, we highlight the various areas where machine learning is employed, including particle identification and reconstruction, event classification, jet identification and tagging, anomaly detection, data analysis, and detector calibration. We discuss the significance of machine learning in enhancing the capabilities of the CMS experiment, enabling advancements in the understanding of particle physics and the search for new physics phenomena.

### Is this abstract from experiment?

Yes

## Name of experiment and experimental site

CMS Collaboration

#### Is the speaker for that presentation defined?

Yes

## Details

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#### Internet talk

Yes

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