

Machine Learning techniques for background noise identification in ATLAS

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The ATLAS experiment at the LHC presents a very complex data scenario, with tens of protons colliding in the same bunch interaction every 25ns at high energies of 13 TeV. Together with the SM processes generated in the collisions, data analyses have to deal with other sources of noise like detector effects of beam-induced backgrounds. In this talk we'll review different machine-learning techniques to identify these kinds of background in unconventional searches like those looking for potential new long-lived particles, whose signatures in the detector resemble those of the background noise and cannot easily be discriminated from them.

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