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Outlier Exposure for the BSM searches at LHC

In this talk, I will discuss the application of the Outlier Exposure technique for searching the physics beyond the standard model at LHC. Outlier exposure is an efficient technique to detect and generalize the hidden anomalies in the data. The method has been tested on multi-class data and has proven capable of detecting anomalies which were not part of the original training data. I will discuss the method in the context of HEP data and its performance for the different auxiliary data sets pertaining to different new physics models. This approach might turn out an effective unsupervised search strategy for the LHC data.

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