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pyBumpHunter : A model agnostic bump hunting tool in python

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The BumpHunter algorithm is a well known test statistic designed to find a excess (or a deficit) in a data histogram with respect to a reference model. It will compute the local and global p-values associated with the most significant deviation of the data distribution. This algorithm has been used in various High Energy Physics analyses. The pyBumpHunter package [1] proposes a new public implementation of BumpHunter that has been recently accepted in Scikit-HEP. In addition to the usual scan and signal injection test with 1D distributions, pyBumpHunter also provides several features, such as an extension of the algorithm to 2D distributions, multiple channels combination and side-band normalization.
This presentation will give an overview of the available features as well as a few practical examples of application.

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