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Development of a Pyhf - Combine interface

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In the field of High energy physics, there are many tools used to perform the statistical analysis needed to do experimental and phenomenological research in that field. Inside of the CMS collaboration, Combine tool is heavily used to produce binned statistical models. Although Combine is open source and is based in other open source tools as RootFit, RooStats and is build over HistFactory, its proper configuration to work outside of the CMS collaboration is, to say the least, difficult. To avoid these complications, tools based on pure-python have appeared in recent years, an example of this tools is pyhf. The main objective of this work is developing an intermediary software that enable the use of Combine datacards to perform statistical analysis using pyhf. This will allow any scientist outside of the CMS collaboration to run the Combine-based statistical models used to produce the results of experimental analyses.

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