IMPLEMENTATION OF THE XXXXX-XXXX-XXXX-XX ANALYSIS IN THE MADANALYSIS 5 FRAMEWORK

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We present the MADANALYSIS 5 implementation and validation of the XXXXX-XXXX-XXXX-XX search (give the search identifier: CMS-EXO-17-013, etc...). Then describe in one sentence the targeted signature, the luminonsity of analysed data. Explain also in one sentence how the validation was performed. If a short physics is performed during the school, please mention it as well.

Keywords: Keyword1; keyword2; keyword3.

1. Introduction

Here, present briefly the classes of new physics signals investigated in the LHC analysis and describe the signature relevant for the search. Detail the model on which the validation is based on, as well as the benchmark (how the model parameters have been fixed) and the signal.

2. Description of the analysis

Describe in one or two sentences the main idea behind the event selection strategy.

2.1. *Object definitions*

Detail here all the objects that are used in the analysis. This should include typical selection cuts like p_T and $|\eta|$ requirements, isolation criteria, jet definitions, *etc.* Please ignore stuff that we cannot simulate in our machinery.

2.2. *Event selection*

Detail here the different cuts and how they define the different signal regions. A table may be useful to show everything in a compact way.

Table 1. Please use this template for tables.

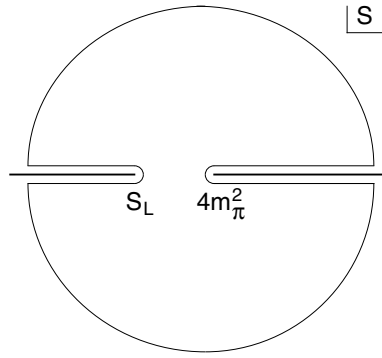| Piston mass	Analytical frequency (Rad/s)	TRIA6-S_1 model (Rad/s)	% Error
1.0	281.0	280.81	0.07
0.1	876.0	875.74	0.03
0.01	2441.0	2441.0	0.0
0.001	4130.0	4129.3	0.16

Fig. 1. Please use this template for figures.

3. Validation

3.1. *Event generation*

Give information on how the event samples relevant for the validation of the analysis have been generated. Provide details about the generators that have been used, their versions, the model files, etc.

3.2. *Comparison with the official results*

In this section, you should put all the comparisons you have made. Cutflows in which you compare the MA5 numbers to the official ATLAS/CMS ones, distributions if any. Put here as much material as possible. Of course this depends on the pieces of information available in the analysis. Assess the level of agreement, why you think it is correct, etc.

4. Conclusions

Summarise your work here.

References

1. E. Conte and B. Fuks, Int. J. Mod. Phys. A **33** (2018) no.28, 1830027 [arXiv:1808.00480 [hep-ph]].
2. B. Dumont *et al.*, Eur. Phys. J. C **75** (2015) no.2, 56 [arXiv:1407.3278 [hep-ph]].
3. E. Conte, B. Dumont, B. Fuks and C. Wymant, Eur. Phys. J. C **74** (2014) no.10, 3103 [arXiv:1405.3982 [hep-ph]].
4. E. Conte, B. Fuks and G. Serret, Comput. Phys. Commun. **184** (2013) 222 [arXiv:1206.1599 [hep-ph]].