Recasting activities at LH2017

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Abstract
We examine Recasting activities at LH2017.

1. INTRODUCTION

1.1 General Activities

- Feasibility study of the implementation/portability of complicated MVA techniques (BDT, NN,) into the analyses
- Improvement of results and recastability: how to provide correlations signal systematics, possibility of providing a few key observables unfolded.
- Comparison of between DELPHES results and simple object smearing.
- Trying out the use of particle-level measurements to constrain model models

1.2 Formats

Object efficiency tables : which format (HEPDATA?)

1.3 Benchmarking/Comparisons

- Implementation of analyses of increasing complexity in the Analysis Description Format (LHADA Proposal) and in (BSM) Rivet and their comparison.
- Choose an analysis of ATLAS or CMS which has cutflow and detector effects provided in some form, and possibly is already been implemented in the recasting codes CheckMate/MadAnalysis/Rivet/ATOM/.
- Implement the same analysis in LHADA and then use the dedicated parsers to provide the analysis for the recasting codes.
- Reproduce the NP interpretation of the original paper (=validation implementation).
- Recast the analysis for an other new physics model and compare the results.
- Go to point one and choose a more complicated analysis

it would be interesting to see how Delphes performance looks without analysis-specific cards, since a lot of people (outside the big recasting groups) are using it that way.

1.4 How to validate the analyses

1.5 Simulation results

CONCLUSIONS

ACKNOWLEDGEMENTS

K. Slane would like to thank CERN and LAPTh for hospitality offered during which some of the work contained herein was performed.

References