Abstract Submitted
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Deep Learning and the Higgs YUSHENG ZHAO, Stony Brook University — Due to the abundance of data in the field of experimental particle physics, it is inevitable for the two fields of data science and particle physics to collaborate during the analysis of experimental data. Using boosted decision tree (BDT) and shallow neural networks, physicists were able to find strong evidence of the existence of the Higgs and continue to understand more about the Higgs. In the talk, I will first present the importance of the Higgs in the Standard Model. Following that, details regarding how machine learning helps to identify the existence of the Higgs Boson will be explained. Deep learning's role in the follow up investigation will be discussed. Finally, I will close with with some challenges and outlooks.

[X] Prefer Oral Session
[ ] Prefer Poster Session

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