

Reusing Neural Networks: Lessons learned and Suggestions for the future

Monday, 12 December 2022 17:00 (15 minutes)

I present the lessons learned as re-interpreters trying to reuse analyses centred on neural networks in the RIVET framework, using two recent ATLAS analyses – SUSY and Exotics searches – as examples. I survey the possible ways that an analysis team can preserve and publicise their neural network for future use, and provide a detailed examination of the ONNX and lwttn preservation tools, describing their advantages and disadvantages for both the original analysis team and re-interpreters.

I also comment on how thinking about re-use from the beginning could change how analyses design and use neural networks; and what supplementary data becomes even more important for validation.

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Session Classification: Experience and feedback using reinterpretation material