(Machine) Learning the production cross sections of the Inert Doublet Model.

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In phenomenological studies of BSM theories, the computation of production cross sections over large parameter spaces usually takes a large amount of time. A proposed solution is to build deep neural networks (DNN) that accurately predict the production cross sections of a given BSM model substantially reducing computational costs. In this contribution, I will present a status report on the implementation of a DNN applied to the Inert Doublet Model with this objective. Furthermore, I will comment on the ongoing project consisting on creating an open library of classifiers and regressors applied in particle physics phenomenology.

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