# Machine Learning tutorial

Signal/background discrimination for the VBF Higgs four lepton decay channel

with the CMS experiment using Machine Learning classification techniques

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# Instructions

- Github repository for the code: https://github.com/bdanzi/Higgs_exercise

- Download VBF_exercise.ipynb and load in google Colab

  OR one can just click on the following link:

  *https://colab.research.google.com/drive/1hVA0E5kosM2gdFkJINb6WeVp5hjG1ML1?usp=sharing*

- Download files for 4mu final state:

  *https://recascloud.ba.infn.it/index.php/s/Xc6efWFZ8TuUXZF*

- Download files for 4° final state:

  *https://recascloud.ba.infn.it/index.php/s/zCCFhENzhDc7HUd*

- and upload them in google Colab

- start reading the instructions in the .pyb file and execute the commands