

# Implementation, test and documentation of a public Open Data analysis example with LHC and other HEP Open Data in the context of PUNCH4NFDI

Open Data analysis examples in HEP are so far available in simplified approaches for educational purposes, or at research level in dedicated technically rather demanding environments.

Based on previous work, e.g. the analysis of decays of the Higgs boson to four leptons, or the analysis of Z boson and J/psi meson production with decays to two leptons, the main goal is to bring such an analysis example using HEP data from different experiments in a common format to a level that it can be made public on the new PUNCH4NFDI data portal.

This includes both work on the analysis itself, its documentation, as well as on the accompanying metadata handling. It may include tools such as python-based Jupyter notebooks.

Physics: 30%, Computing: 30%, Documentation: 30%

## Field

B1: Particle physics analysis (software-oriented)

## DESY Place

Hamburg

## DESY Division

FH

## DESY Group

CMS

## Special Qualifications:

Learning on the job. Some previous computing experience required. Preknowledge in linux, ROOT/C++ or python, and particle physics helpful, but not strictly required

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