Contribution ID: **74** Type: **On-site planned, but remote also possible**

Analysis of Belle II data

Belle II is the detector observing electron-positron annihilations at the asymmetric energy Super-KEKB factory in Japan since 2019. More than a billion processed and calibrated events are available at DESY. Physics topics being pursued include precision lifetime measurements for tau leptons and charm hadrons, which exploit the unique pixel vertex detector. Further analysis techniques being developed include time-dependent Dalitz plots for charm mixing and CP violation studies and recoil mass spectra for B decay measurements and searches. A student project would be defined in one of these areas. The data are stored as ROOT trees and analyzed in C++ and optionally Python. Some programming and particle physics knowledge would be beneficial but most of the learning will come from using examples on the data.

Field

B1: Particle physics analysis (software-oriented)

DESY Place

Hamburg

DESY Division

FH

DESY Group

Belle II

Special Qualifications:

Primary author: PITZL, Daniel (DESY FH/Belle II)