

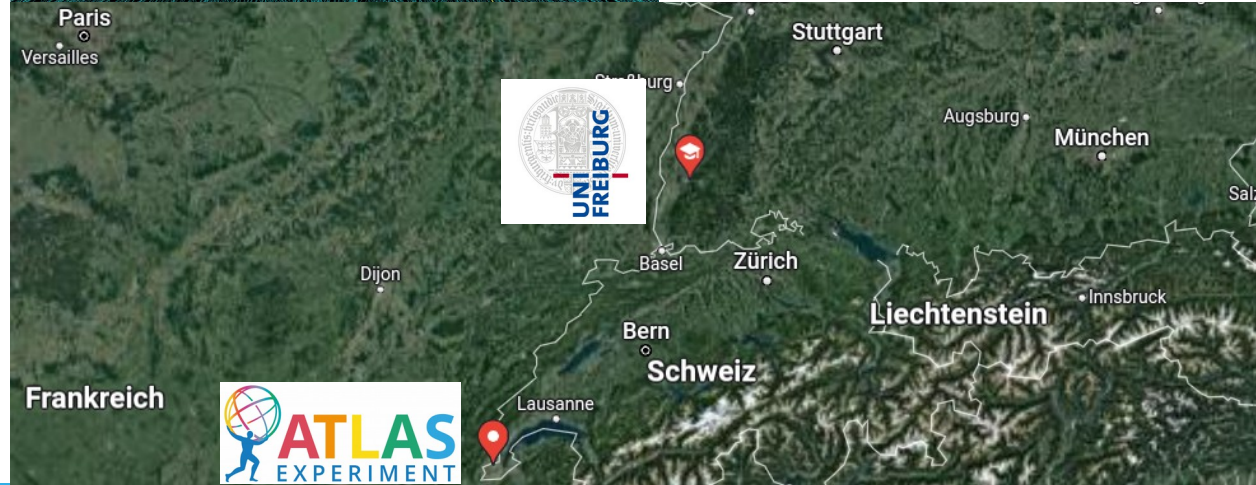
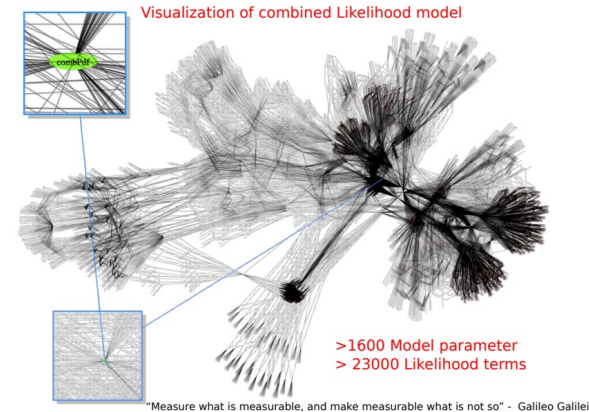
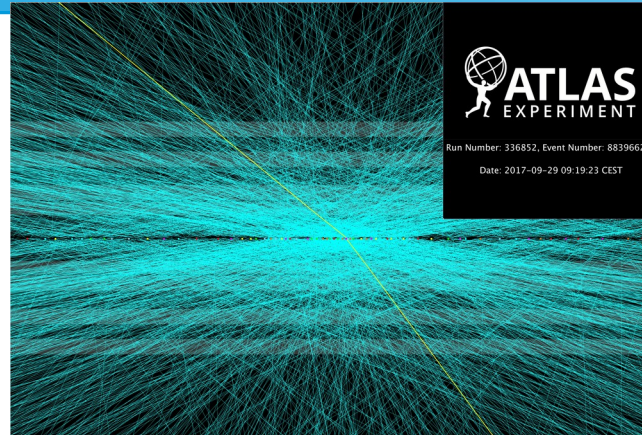
# From high energy to high precision frontier (Or from the desk to the lab)

Fabian Becherer



# Before DESY

- Born at the Swiss border in the south of Germany
- Studies and PhD at University of Freiburg
- B.Sc., M.Sc. and PhD with ATLAS (CERN)
- Cross sections measurements of the Higgs boson
  - Decay into tau pair
  - Combination of diff. decay modes
- Analyst main focus on statistic and fit model



- Circular pp collider
- 27 km circumference
- Energy: Up-to 14 TeV
- Data-set: 140 fb<sup>-1</sup> (until 2022)

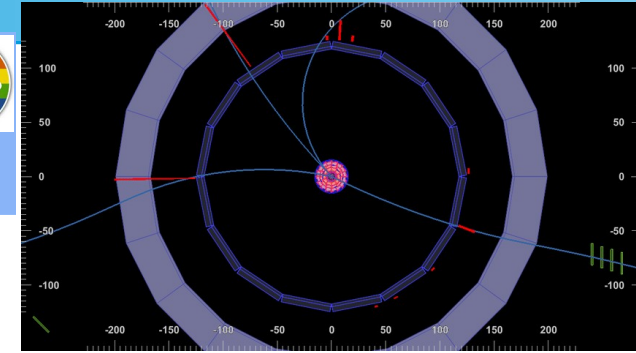


# At DESY

- Belle 2 at KEK in Japan
- Analysis project (currently ~10%)
  - Tau lifetime measurement
- Detector project
  - Commissioning and Installation of PXD2



Circular  $e^+e^-$  collider  
3 km circumference  
Energy: ~11 GeV  
Data-set: 424 fb<sup>-1</sup>



PXD2 half-shell



PXD2 commissioning setup at DESY



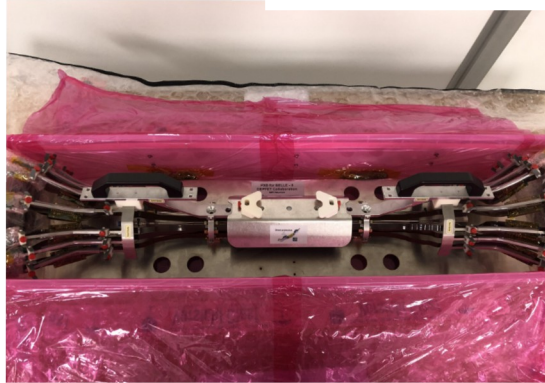
PXD2 mechanical optimization at DESY





For DESY at KEK

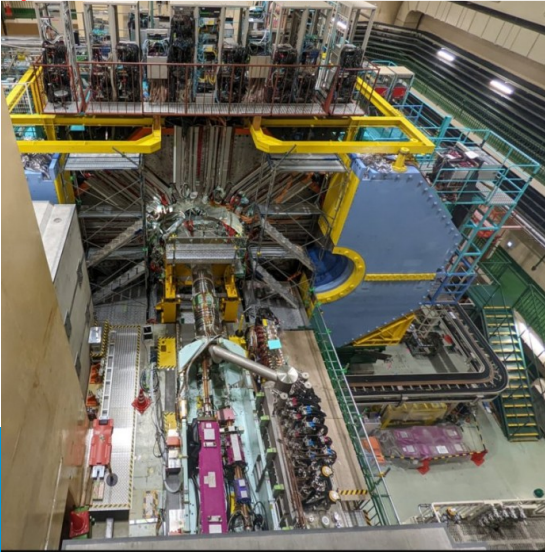
## Transport to KEK



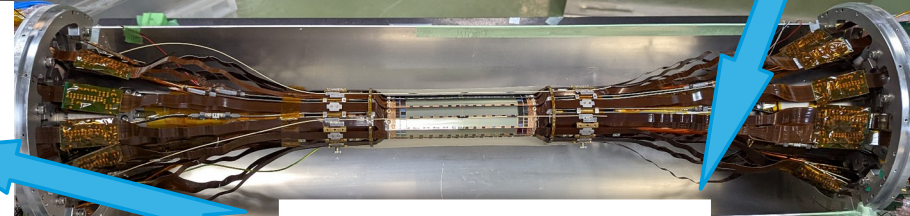
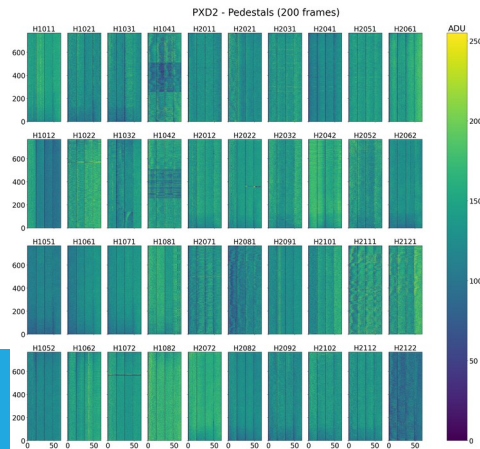
## Installation on beam-pipe



## Replacement of PXD in Belle 2



Verify and optimize data collection

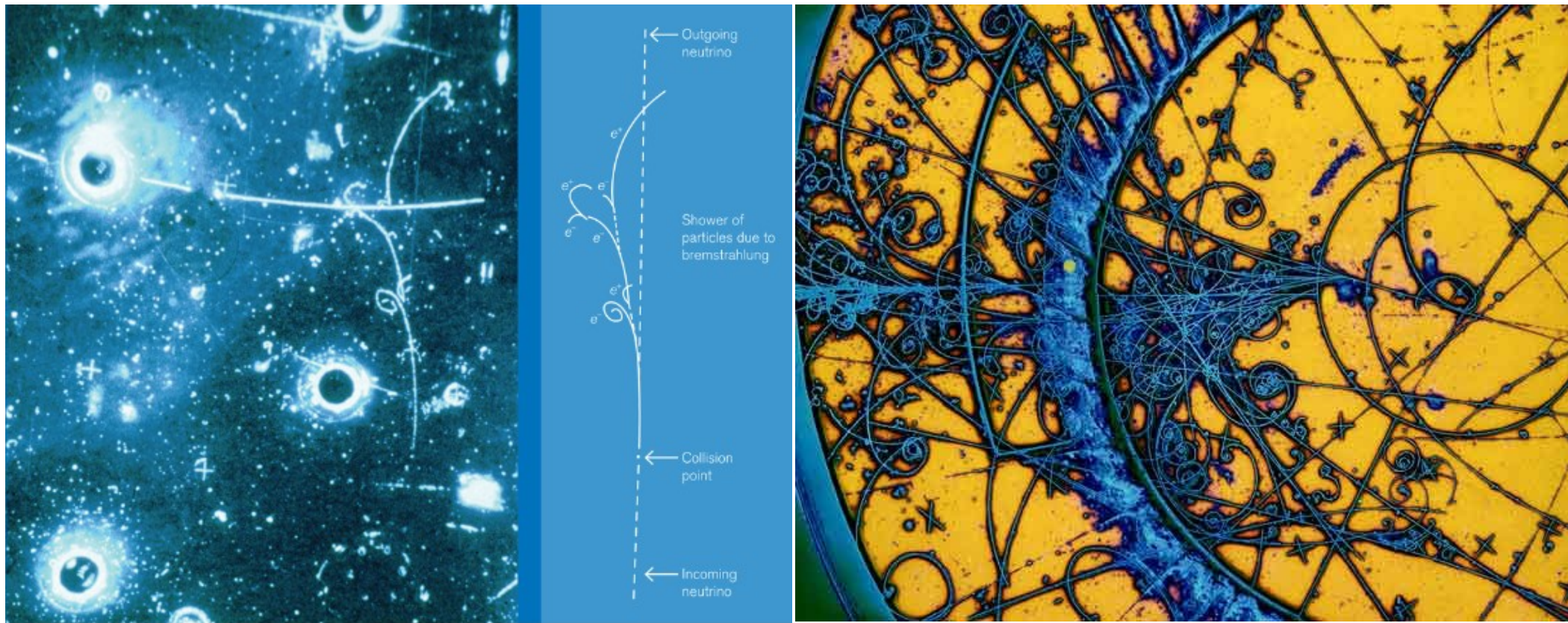


## Service installation





# Bubble chamber pictures



Gargamelle collaboration

Big European Bubble Chamber (BEBC)