ILD background study
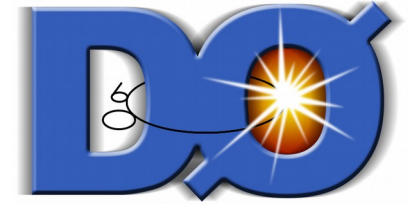
Master student: Zhanna Khuranova

Supervisors: V.Aushev Y.Onishchuk

Plan

1.Previous experience in data analysis.
2.What now?
3.Future plans

Experience
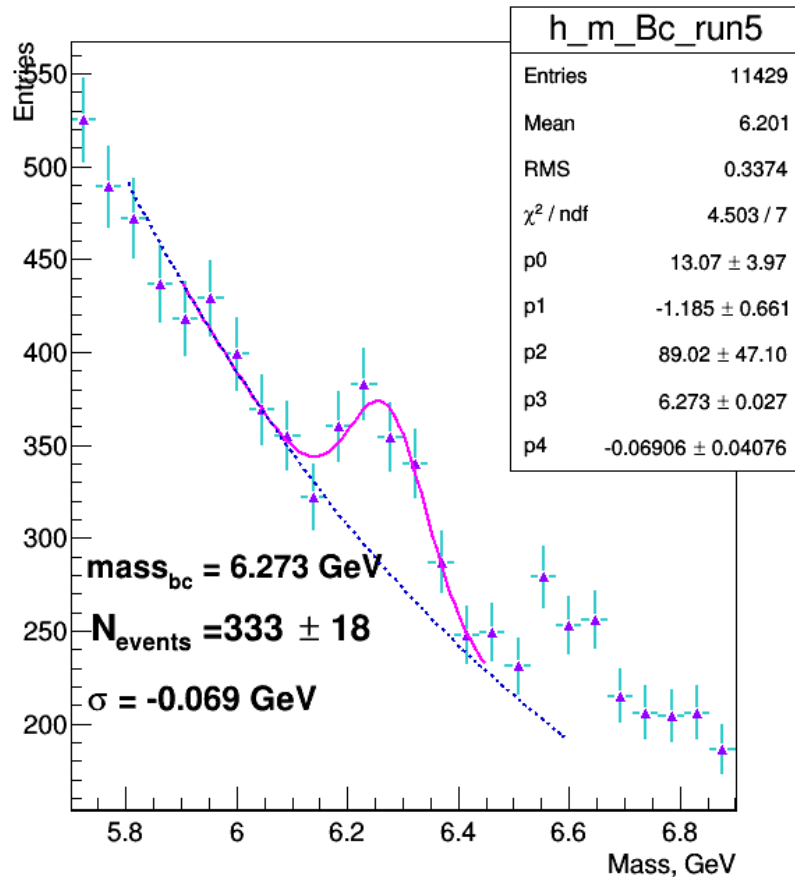
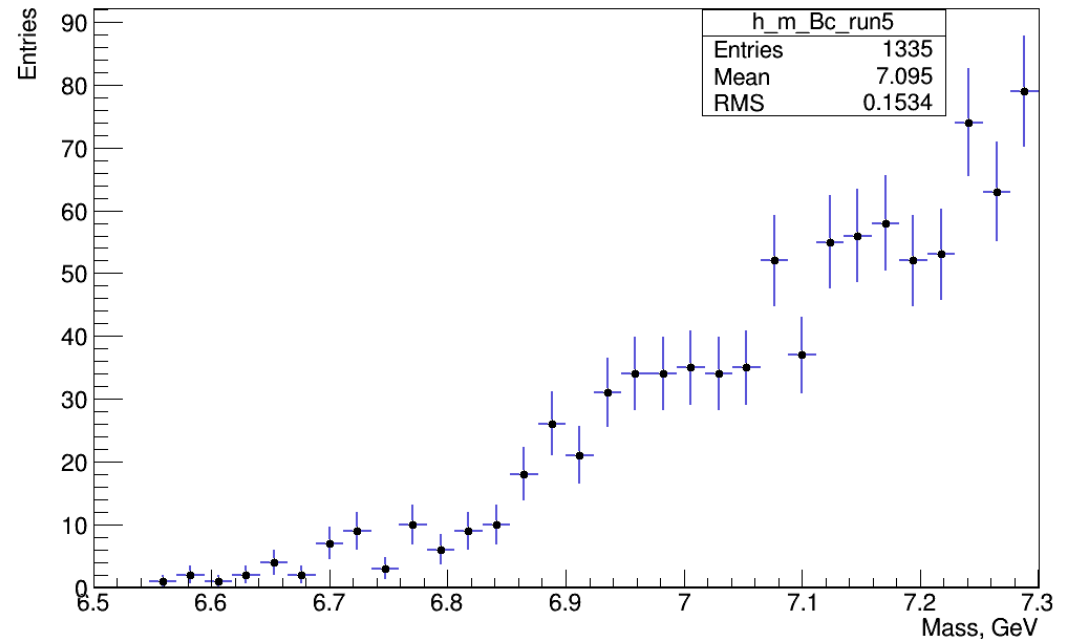## Study Bc and search for Bc(2S) meson (bachelor's thesis)

- → Bc-meson observed with good statistic:

RD Bc mass spectrum

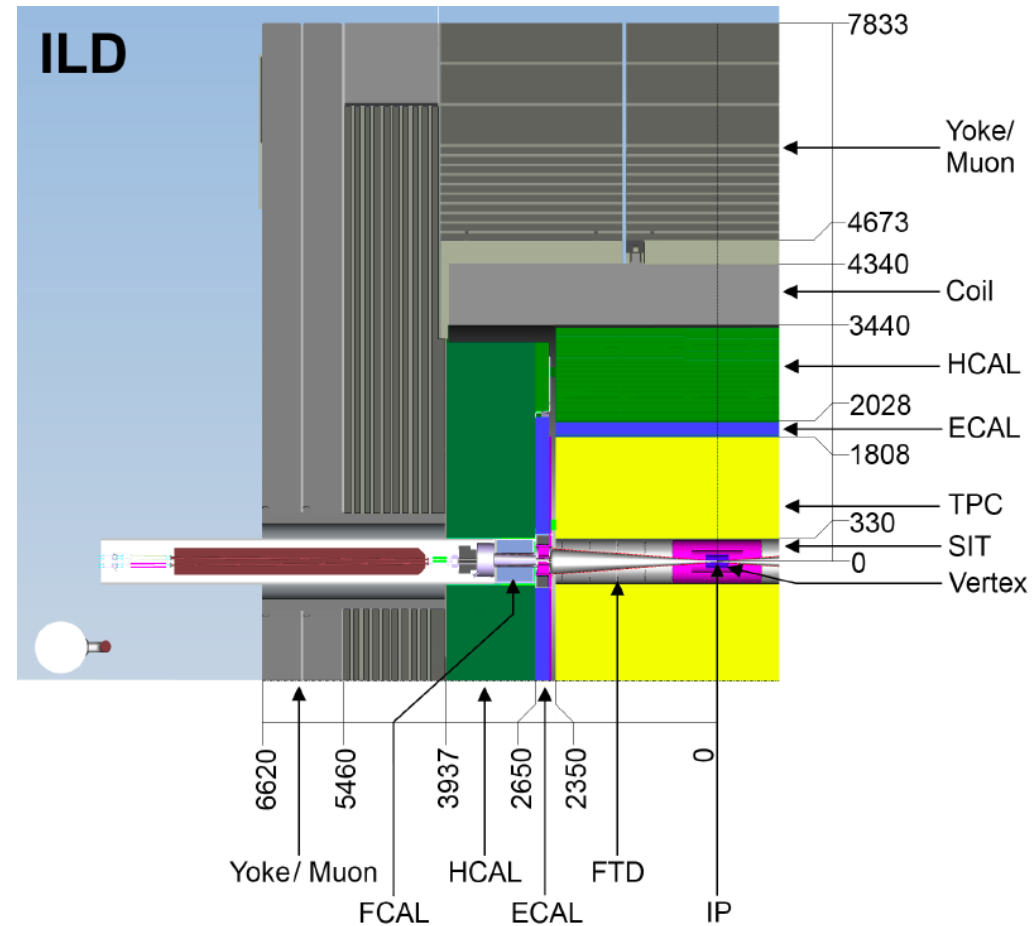| h_m_Bc_run5	
Entries	11429
Mean	6.201
RMS	0.3374
χ^2 / ndf	4.503 / 7
p0	13.07 ± 3.97
p1	-1.185 ± 0.661
p2	89.02 ± 47.10
p3	6.273 ± 0.027
p4	-0.06906 ± 0.04076

$mass_{bc}$ = 6.273 GeV

N_{events} = 333 ± 18

σ = -0.069 GeV

→ *no evidence Bc(2s)*

RD Bc exited mass spectrum

h_m_Bc_run5	
Entries	1335
Mean	7.095
RMS	0.1534

ILD

- Detector for electron-positron linear collider (**ILC**) a total collision energy of 500 GeV ...

- ILD has been developed for high precision event reconstruction, as needed by the science program at the ILC...

- I would like to make contribution to the project

What now ?

✔ DESY account

✔ DD4HEP

🔵 GRID certificate – in process .

🔵 Access to MC data and examples of cuts to start analysis

- Nearest plans : ILD background study

Thank your for attention !