

Work Plans



Marcin Chrzaszcz
mchrzasz@cern.ch



**University of
Zurich** ^{UZH}

Zurich meeting, Zurich
May 10, 2016

Semileptonics

⇒ Idea: Measure the :

$$R(\Lambda_c^*) = \frac{\mathcal{B}(\Lambda_b \rightarrow \Lambda_c^{(*)} \tau \nu)}{\mathcal{B}(\Lambda_b \rightarrow \Lambda_c^{(*)} \mu \nu)}$$

⇒ Target: The excited states end of this year!

⇒ The ground state early next year!

⇒ Manpower: Elena + Andrea later.

⇒ Collaboration with prof. van Dyk for phenomenology paper etc.

⇒ In early next year measure the form factors using the muon mode!

Rare decays 1

⇒ Idea: Measure the angular difference(in terms of moments):

$$M_i(B \rightarrow K\mu\mu) - M_i(B \rightarrow Kee)$$

⇒ Target: Early next year.

⇒ Sensitivity to LUV.

⇒ Man power: Goska(Krakow).

⇒ Collaboration: Imperial, Edinburgh, Bristol.

Rare decays 2

⇒ Idea: Put limits on:

$$\mathcal{B}(B \rightarrow K\mu e)$$

⇒ Target: Middle of next year.

⇒ Should easily beat the B factories 9.8×10^{-8} .

⇒ Unfortunately: collaboration with Dortmund and Paris....

⇒ Man power: Goska

Rare decays 3

⇒ Idea: Search for inflation:

$$\mathcal{B}(B \rightarrow K \chi(\mu\mu))$$

⇒ Target: Circulation to WG this week.

⇒ We are 20% better than Mike Williams.

⇒ Man power: Andrea

⇒ Measure the

$$qq \rightarrow \gamma/Z \rightarrow \mu\mu$$

⇒ Target: Autumn this week.

⇒ Complementary measurement to ATLAS in CMS(different x region).

- ⇒ End of this year there will be a new HFAG report!
- ⇒ Last week already reviewed the fit that will be used in the PDG report
- ⇒ Will probably need around 2 weeks this year to finish there.
- ⇒ Need also to go to HFAG col. meeting at CKM

- ⇒ We are in process in finalizing Run1 papers
- ⇒ Unfortunately a lot of man power is going into politics.
- ⇒ Will increase the responsibilities thanks and Flavour WG!

