

Searching for 'new' physics; At low, intermediate or high energy... (is 'big' better David?)

'Flash' presentations:

- **Ginny Marshall**
- **Broos Vermeulen**
- **Miriam Luzio Martinez**
- **Carsten Burgard**
- **Rhory Gauld**



'Questions' raised:

- **Ginny**
- **Broos**
- **Miriam**
- **Carsten**
- **Rhory**



Discussion

Discussion (Ginny)

- What's the point of measuring θ in a more and more precise way?
- What are the differences between a local 'table-top' experiment and an international km-scale experiment?
- If we measure a non-zero eEDM next year, which LHC experiment(s) can point to the source of this new physics?

DISCUSSION (Broos)

What if we get the expected FermiLab measurement at 7 sigma?

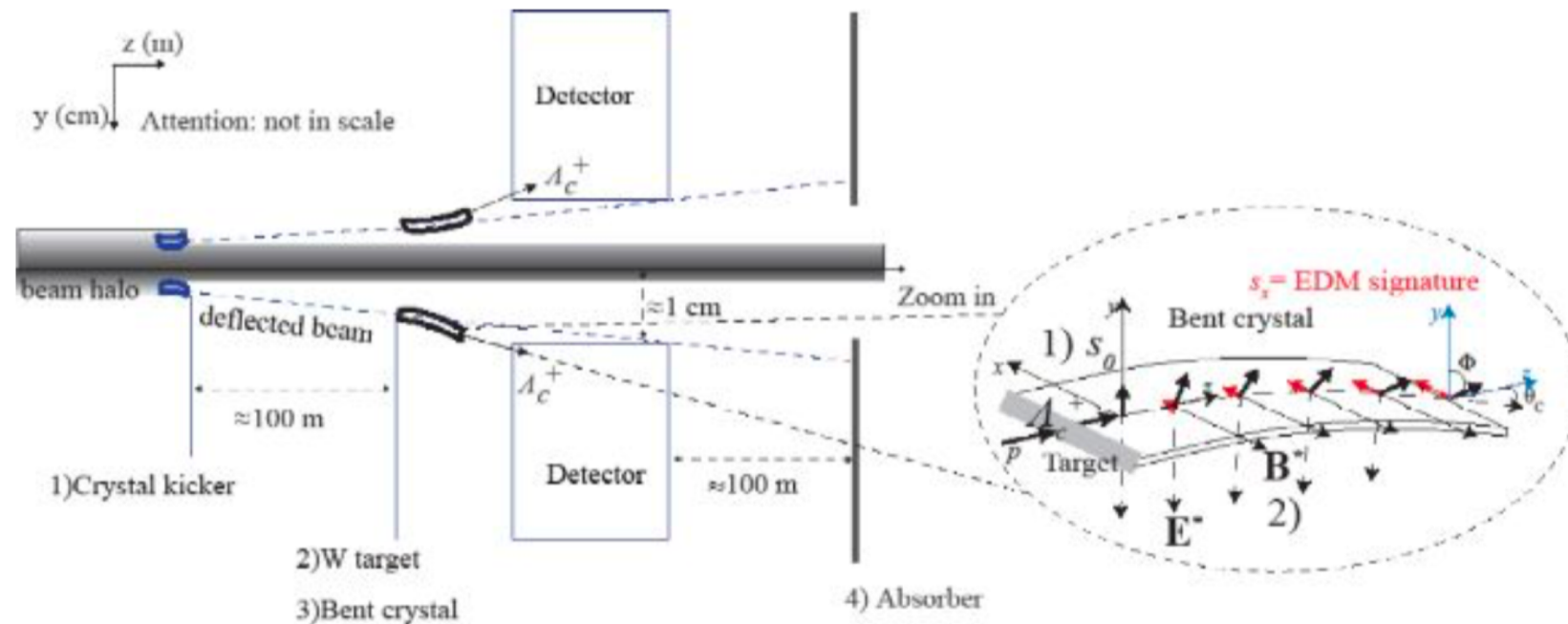
If this is a discovery, what direction will it point us?

Sensitivity to new particles with masses in the range 10 MeV to 1000 GeV

Similar mass region to the LHC experiments? But in a very different way?

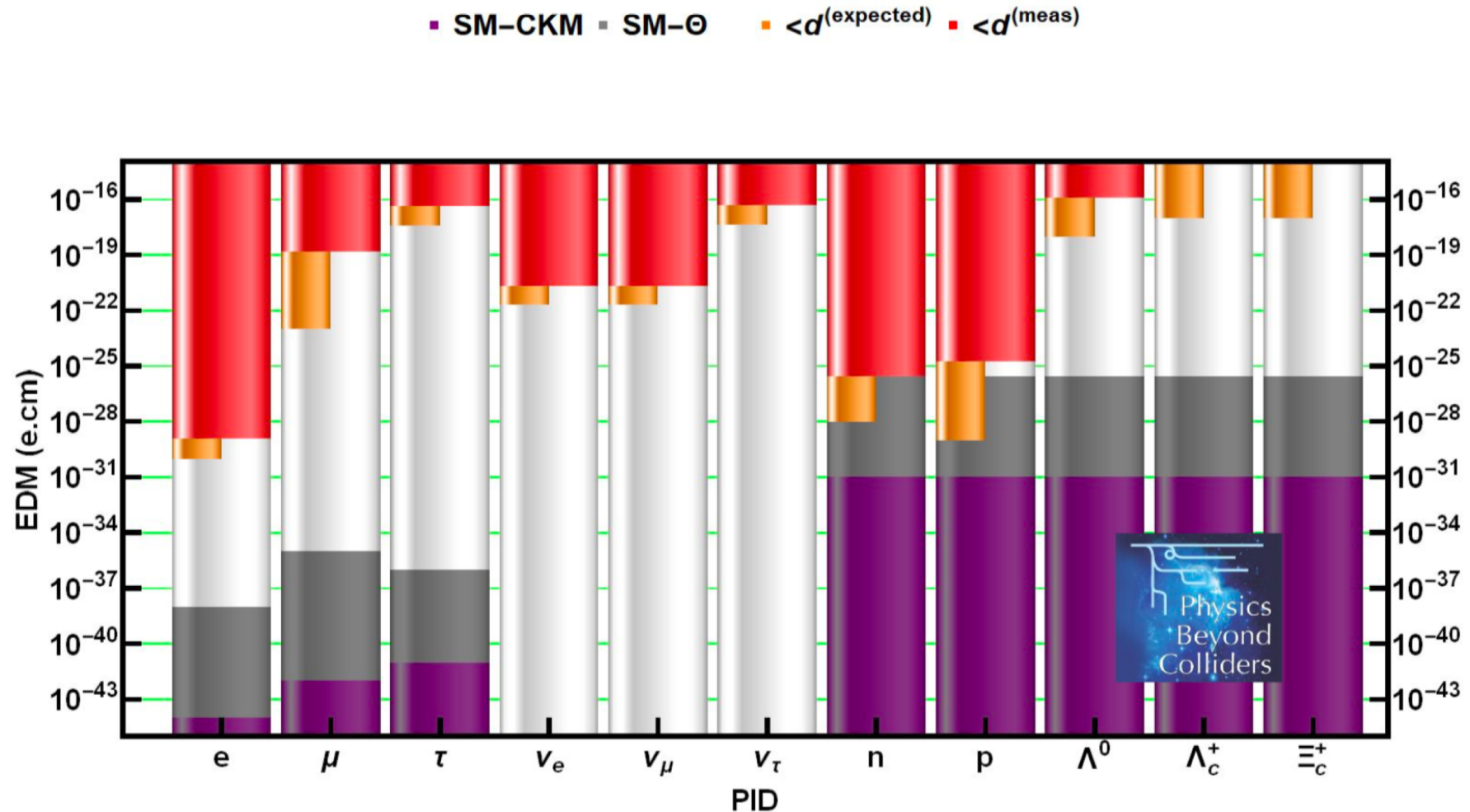
Discussion. EDM's and more (Miriam)

- Proposal to measure MDM's and EDM's of baryons at LHCb using bent crystals



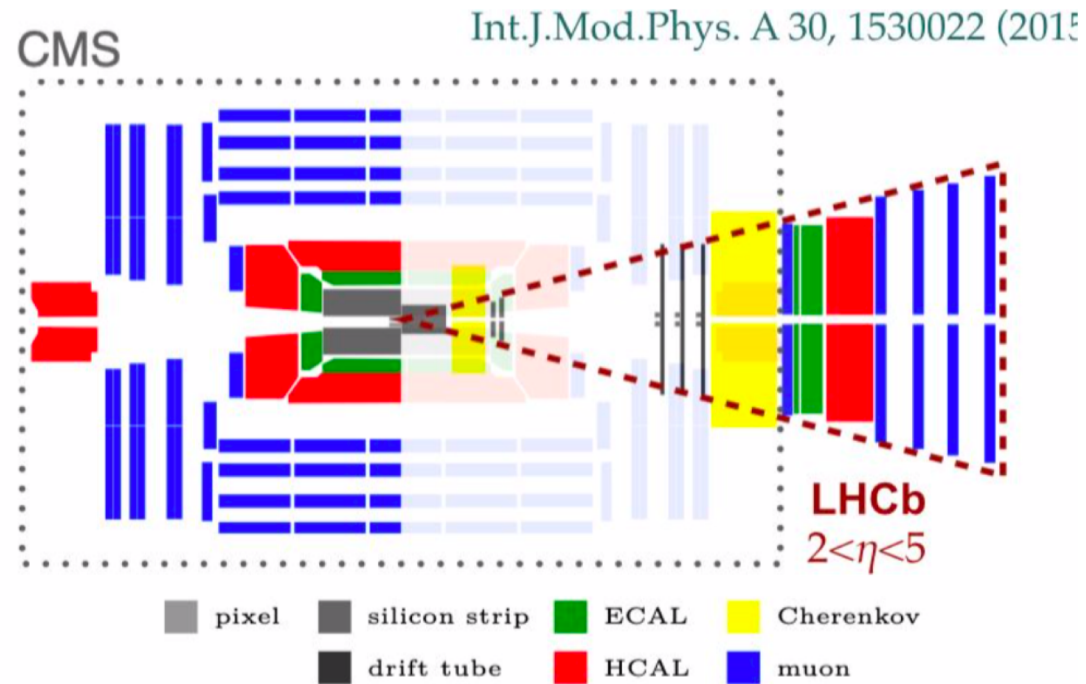
[Phys.Lett. B757 (2016) 426, Eur.Phys.J. C77 (2017) 828]

Discussion. EDM's and more (Miriam)



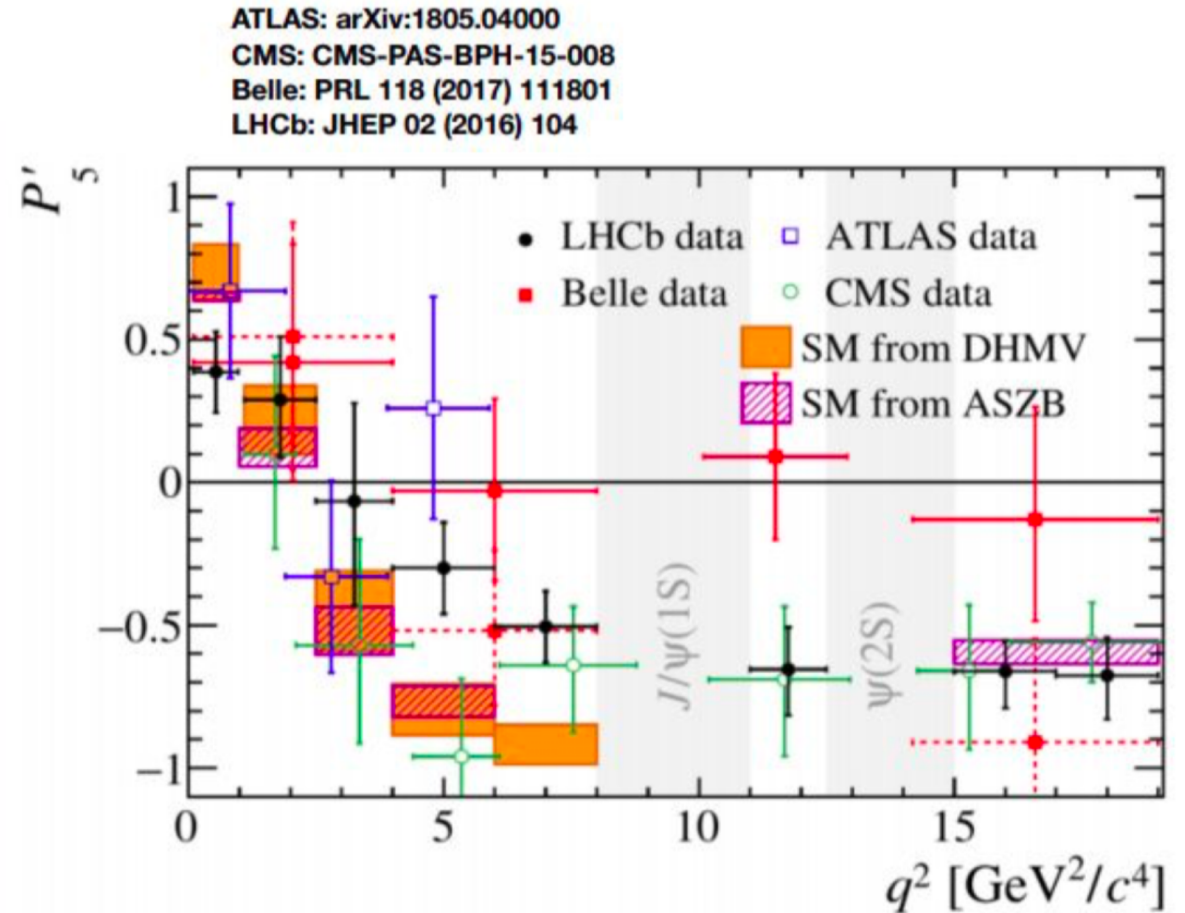
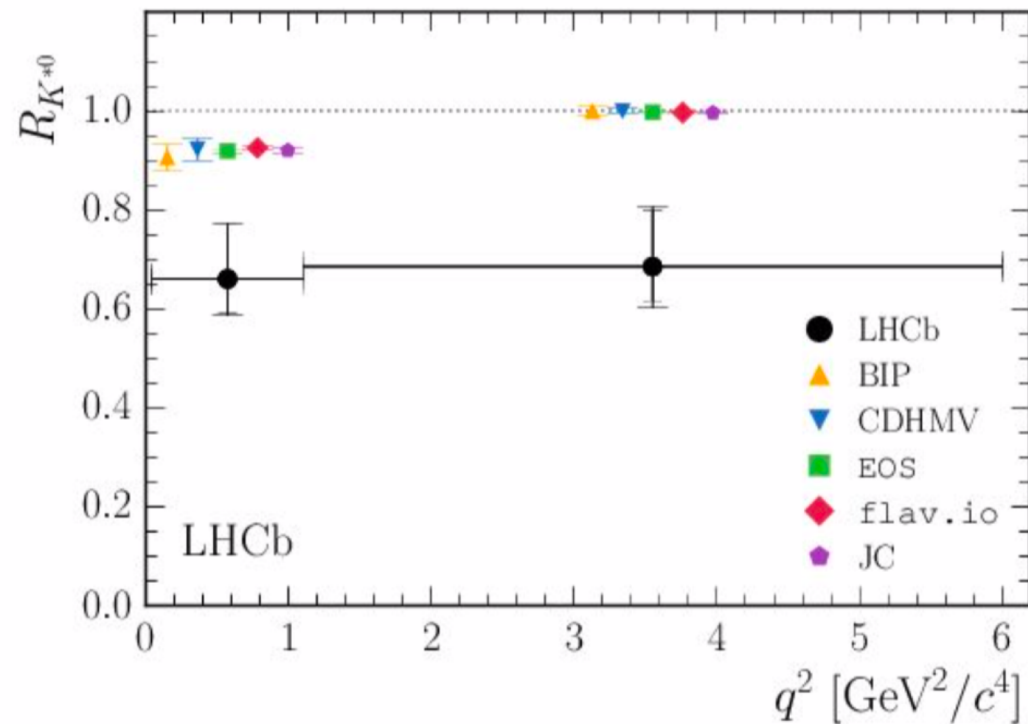
Discussion. EDM's and more (Miriam)

- LHCb provides unique coverage in terms of NP searches

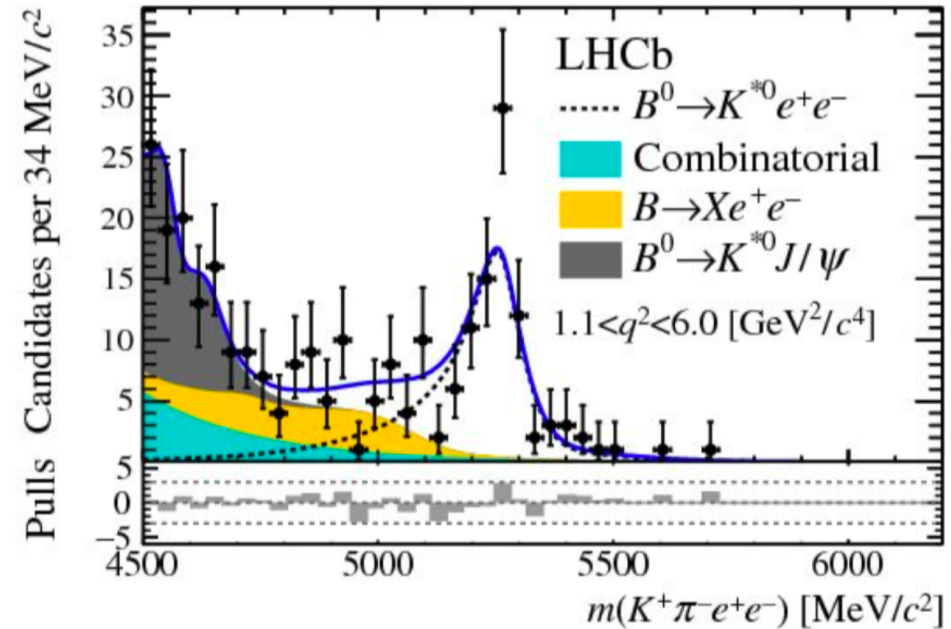
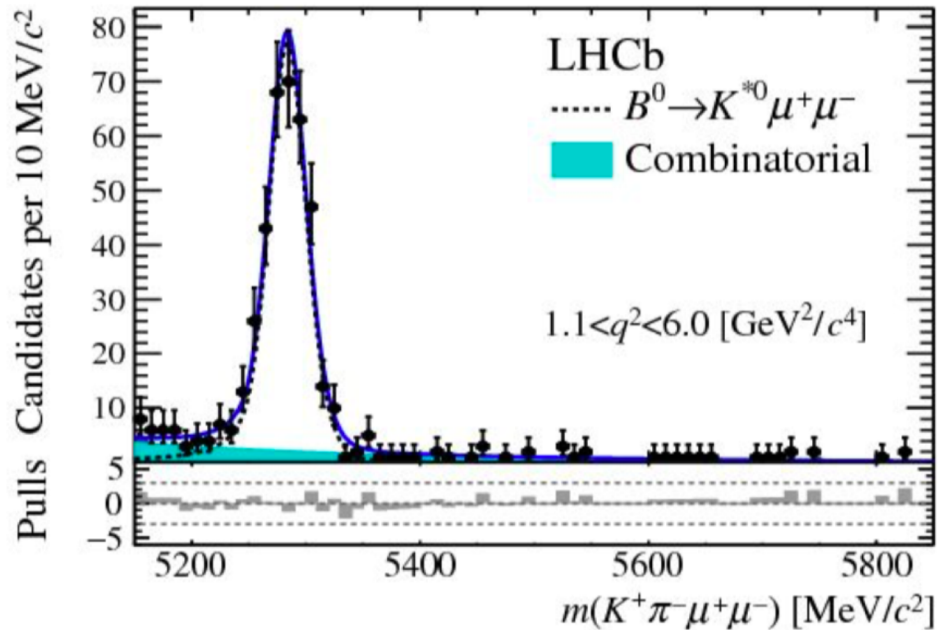


Discussion. LHCb anomalies (Miriam)

Interest pattern observed ... needs confirmation from Run 2 data!

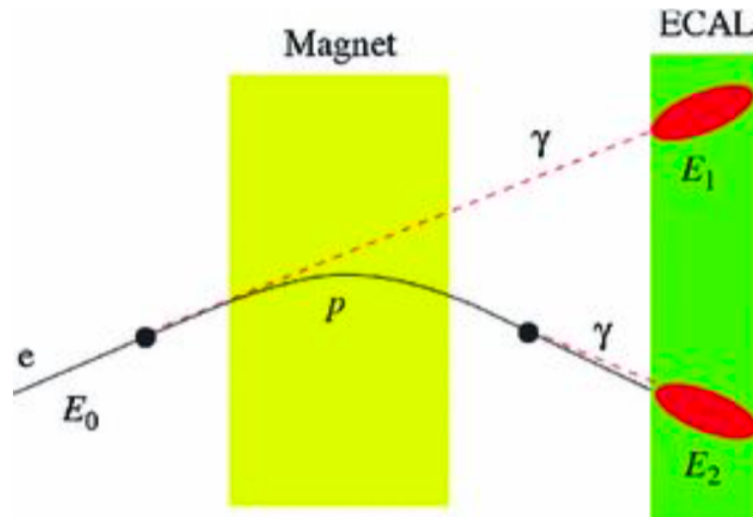


Discussion. LHCb electron reconstruction (Miriam)



Discussion. LHCb electron reconstruction

Electrons are challenging to reconstruct @ LHCb because of the bremsstrahlung radiation, that spoils the q^2 invariant mass and momentum resolutions



(Miriam)