

## Current team

### USC (founding member of LHCb)

**Catedráticos (Full Professor):** Maximo Plo , Bernardo Adeva

**RyC (Spanish Tenure Track):** Xabier Cid Vidal

**JdC:** Veronika Chobanova (moving to *Investigador Distinguido* Manuela Barreiro/Sergio Vidal (sorry always lost with these categories)

**Postdoc Global Talent (IGFAE/MdM):** Jeremy Dalseno

**Other Postdocs :** Claire Prouve , Titus Mombacher

**PhD students:** Marcos Romero, Alexandre Brea, Adrian Casais, Ramon Ruiz, Pablo Baladron, Saul Lopez Solino, Lorena Dieste, Asier Pereiro

**Master/Undergrad:** Isabel Sainz, Alejandro Cajide, Emilio Xose Rodriguez, Carlos Mejide

### Conselleria de Economia e Industria, Xunta de Galicia

Diego Martinez Santos (Investigador Distinguido Oportunius ~ Research Professor)

Project PI's: Diego Martinez / Veronika Chobanova

## *Activities*

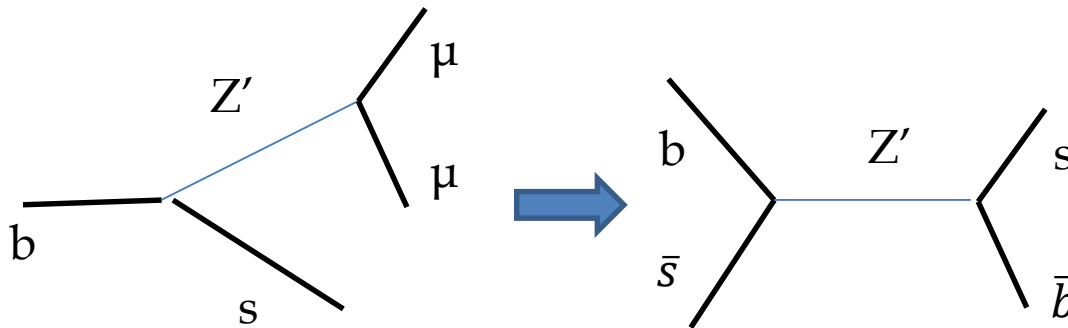
- High Level Trigger (Allen, HLT2)
- Flavor Tagging (Veronika coordinates FT in LHCb)
- Physics WG's
  - B2CC (see next slides)
  - B2noC (see Asier's slides)
  - SL (see Alex slides)
  - QEE (see Xabier slides)
  - Also some activity in RD (see talk by Titus) and B2OC (see talk by Claire)
- Other activities: precise fast simulation and event display, HFLAV, phenomenology, machine learning (see talk by Lorena), CODEX-b (see Xabi)

## Analises: B2CC ( $B_s$ oscillation)

$B_s$  lifetime, mixing parameters

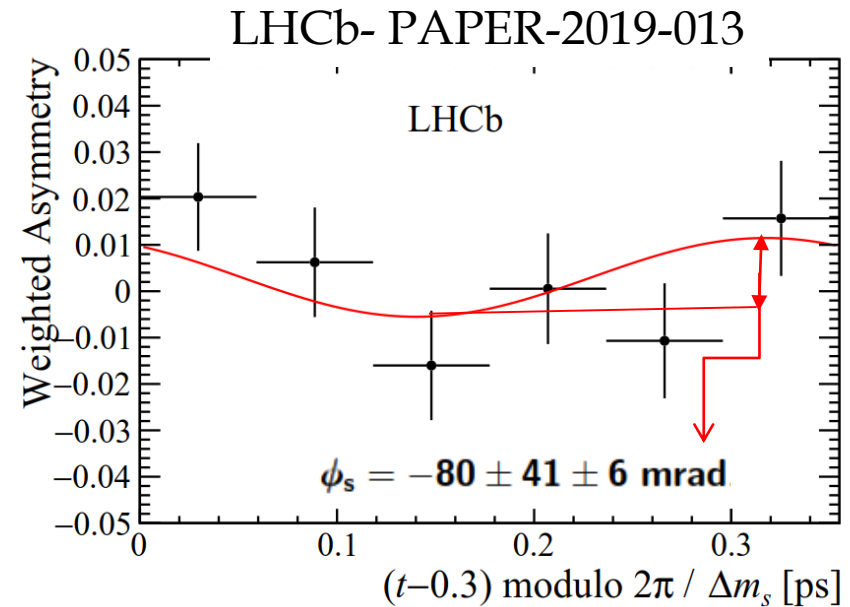
→ Most interesting :  $\phi_{13}$  (TH clean, EXP clean, BSM sensitive)

- Fundamental test to any model that predicts new physics in the  $B_s$  system
- Eg, B anomalies:



Biggest pain here: The lifetime measurement requires very small systematics but is very sensitive to all possible shit

→ Typically takes several years of work (very different from everything else I've done eg,  $P \rightarrow \mu \mu$  or similar)



## *Analises: B2CC ( $B_s$ oscillation)*



Marcos Romero,  
"Marcosito"



Ramon Ruiz  
"Monchito"



Veronika Chobanova

## *Analises: Strange decays*

- Recently finished an ERC focused on trigger and Strange decays. Main physics result was full Run2  $K_s \rightarrow \mu\mu$  analysis
- Currently doing SL baryon decays (see slides by Alex)
- Pipeline:  $K_s \rightarrow \pi^0 \mu\mu$ ,  $K_s \rightarrow 4\mu$ ... but no manpower at the moment