

- ◆ Refers to direct searches for BSM physics at low masses/energies, LLPs (Long-Lived particles), and others. Main activities:
 - ALPs $\rightarrow \gamma\gamma$ [Adrián PhD, Isabel (undergrad), Titus, XCV]
 - DM in B decays [Saúl PhD, Emilio (MSc), Titus, Diego, Veronika, XCV]
 - Model independent searches using ML [Carlos (undergrad), XCV]
 - Several pheno papers ongoing: prospects in searches for Stealth physics at LHCb [XCV]

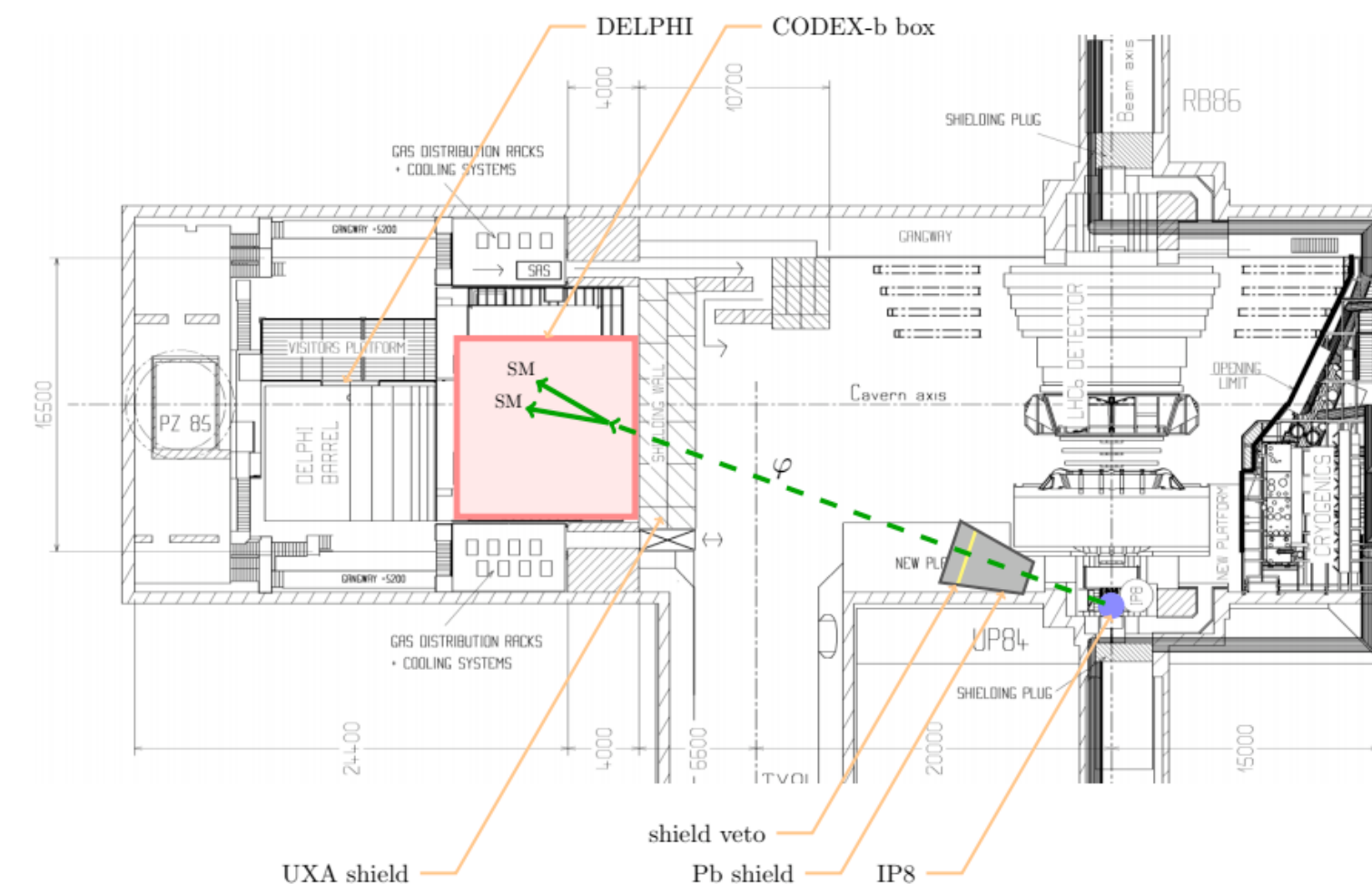
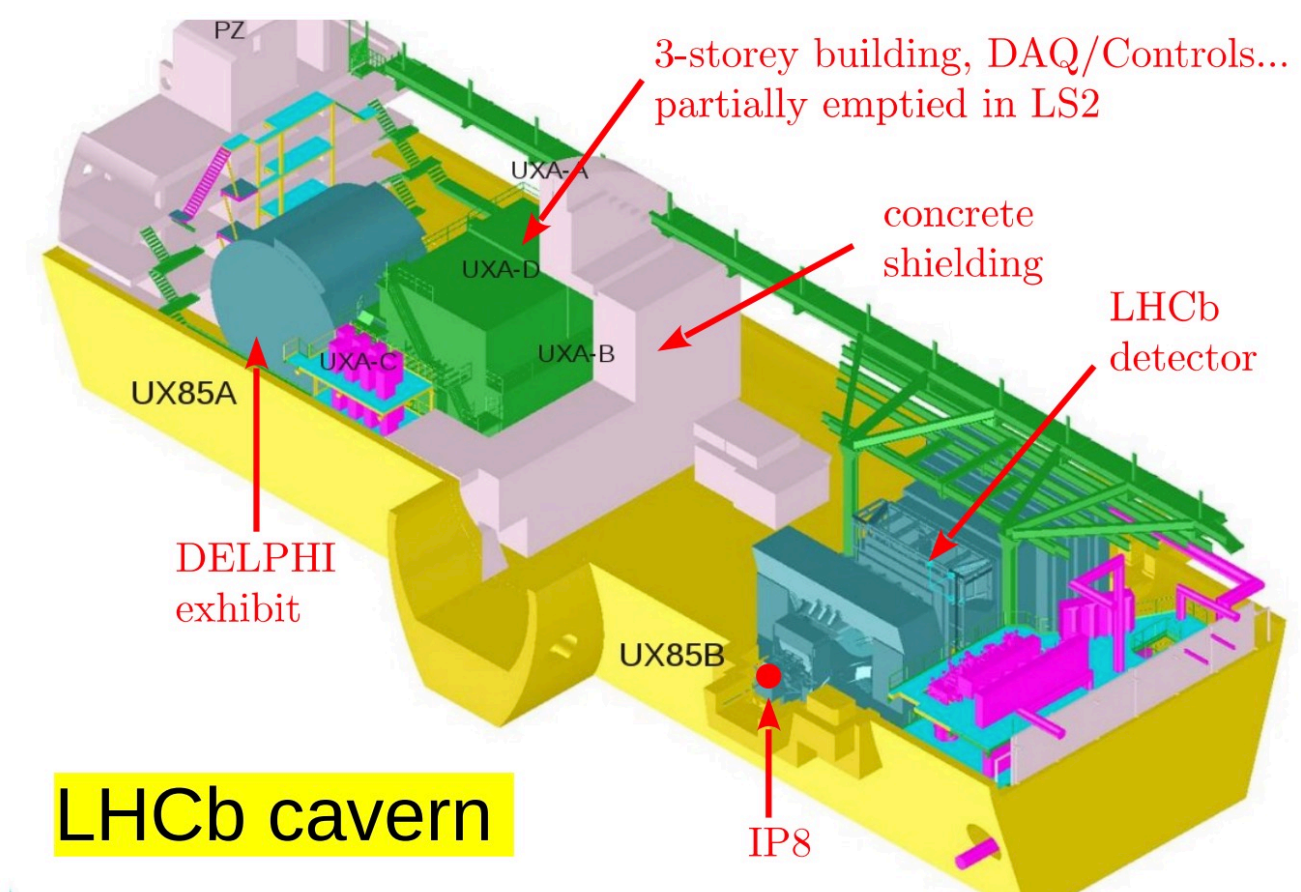
Whitepaper on Stealth physics at LHCb

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◆ Codex-b, a “COmpact Detector for EXotics at LHCb”

[Saúl PhD, XCV Physics Coordinator]

- ➔ During LHCb upgrade, we will remove a lot of trigger CPUs from the LHCb cavern
- ➔ Use the **space available** to search for LLPs, by building a new detector
- ➔ Complementary or outperforming other proposals



Expression of Interest for the CODEX-b Detector

Giulio Aielli,¹ Roberto Cardarelli,² Matthew John Charles,³ Xabier Cid Vidal,⁴ Victor Coco,⁵ Biplab Dey,⁶ Raphael Dumps,⁵ Jared A. Evans,⁷ George Gibbons,⁸ Olivier Le Dortz,³ Vladimir V. Gligorov,³ Eli Ben Haim,³ Philip Ilten,⁸ Simon Knapen,⁹ Jongho Lee,^{5,10} Saul López Soliño,⁴ Benjamin Nachman,¹¹ Michele Papucci,^{11,12} Francesco Polci,³ Robin Quessard,¹³ Harikrishnan Ramani,^{11,14} Dean J. Robinson,¹¹ Heinrich Schindler,⁵ Michael D. Sokoloff,⁷ Paul Swallow,⁸ Riccardo Vari,¹⁵ Nigel Watson,⁸ and Mike Williams¹⁶

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