

# **B<sub>s</sub>→ $\phi$ $\phi$ as a potential probe for New Physics at LHCb**

*Tuesday 1 April 2008 11:50 (12 minutes)*

The LHCb experiment, currently being commissioned at CERN, will perform precision measurements of mixing and decays in B-mesons. I will present studies on the decay B<sub>s</sub>→ $\phi$  $\phi$ , a channel in which physics beyond the Standard Model has the potential to affect parameters measurable at LHCb. An introduction to the channel will be given, including the physics of B-meson to Vector-Vector decays. Event selection based on the full LHCb Monte-Carlo data will be discussed, along with expected events yields for various integrated luminosity scenarios. Strategies for fitting the total weak phase,  $\phi_{1s}$ , and the transverse polarisation fraction,  $f_{\perp}$ , will be explored.

## **Talk, Poster, or Talk & Poster**

Talk

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