

Data driven $B \rightarrow hh'$ measurement for $B_s \rightarrow \mu\mu$

CMS AN AN-13-114

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A Meeting

anywhere, anytime

Peaking background:

AN-13-114

- $B_{s/d} \rightarrow hh'$ ($h, h' = \pi, K$), h mis-id as μ
- Independent triggers ($L=20$ /fb)
 - SingleMu40 $O\Gamma$
 - Mu12_eta2p1_DiCentral_40_20_DiBTagIP3D1stTrack
- Exclude jet with triggering muon from analysis to avoid bias
- Measure yield $B \rightarrow hh'$ relative to $B^\pm \rightarrow J/\psi K^\pm$
 - Get ϵ and acceptance from MC
 - Combine with h as μ mis-id prob. ω
- $N_{B \rightarrow hh'} = 2.83 \pm 0.72 \pm 0.23(\text{method}) \pm 0.74(\omega)$

