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## Measurements of rare B meson decays properties with CMS Run2 data

*Monday, August 29, 2022 5:00 PM (10 minutes)*

Rare B meson decays provide important input for studies of anomalies in  $b \rightarrow sl^+l^-$  transitions. The  $B_s^0 \rightarrow \mu^+\mu^-$  is an example of a process with theoretically clean predictions and a clear experimental signature making it a perfect match for BSM physics searches. Here we present a measurement of  $B_s^0 \rightarrow \mu^+\mu^-$  branching fraction and effective lifetime in proton-proton collisions at  $\sqrt{s} = 13\text{TeV}$  using data collected with the CMS detector through years 2016-2018, corresponding to an integrated luminosity of  $140\text{fb}^{-1}$ . The measurement results are found to be consistent with the SM predictions.

**Primary author:** CMS COLLABORATION

**Presenter:** IVANOV, Todor

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