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THEP Journal Club

Oct. 20, 2017 at 12:30 p.m.
Minkowski Raum, Staudinger Weg 7, 05-119

Pizza & Physics at Lunchtime

Note: Special Theorie Palavar

Ryoutaro Watanabe
Osaka U.

The recent anomaly in $b \rightarrow s \mu \mu$ and possible correlations to other observables

In this talk, I will show two of my recent works (arXiv:1609.09078 and arXiv:1702.00395) regarding new physics to accommodate the anomaly in $b \rightarrow s \mu \mu$ which has been standing on these days. First, I will discuss whether or not new physics scenarios can explain the $b \rightarrow s \mu \mu$ anomaly and simultaneously the $R_{D(*)}$ measurement, which also has a large deviation from the SM prediction. Second, I will show some new physics scenario that includes a dark matter can explain the $b \rightarrow s \mu \mu$ and the cosmic ray anomalies [AMS anti-proton excess], interpreted as dark matter annihilation. The possible explanation is consistent with LHC direct searches and dark matter direct detection.

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