

Upalaparna Banerjee

Federico Gasparotto

Pouria Mazloumi

Yong Xu

JOHANNES GUTENBERG
UNIVERSITÄT MAINZ



Theorie-Palaver

May 3, 2022 at 2 p.m.

Lorentz room (Staudingerweg 7, 5th floor)

Rodolfo Capdevilla

U. of Toronto and Perimeter Institute

Systematically testing all new physics solutions of the muon g-2 anomaly

The Fermilab Muon $g-2$ collaboration has recently released its first measurement of $(g-2)_\mu$. This result is consistent with previous Brookhaven measurements and together they yield a statistically significant 4.2σ discrepancy with the Standard Model prediction. New physics solutions to $(g-2)_\mu$ feature light weakly coupled neutral particles or heavy strongly coupled charged particles. In this talk I present an experimental program of existing and proposed experiments that can completely cover the set of theories that explain this anomaly.

Contact:

ubanerjee@uni-mainz.de

fgasparo@uni-mainz.de

pmazloumi@uni-mainz.de

yonxu@uni-mainz.de