
A first discussion of 13 TeV results
April 10-15, 2016, Obergurgl University Center, Tirol, Austria

Contribution ID: **50** Type: **Talk**

# Baryonic Dark Matter at the LHC

*Wednesday 13 April 2016 18:20 (20 minutes)*

I present an extension of the Standard Model where baryon number is a local gauge symmetry that is spontaneously broken. In such a setup, anomaly cancellation requires the introduction of new fermion fields, the lightest of which is an attractive dark matter candidate. Dark matter stability is an automatic consequence of the gauge symmetry, and proton decay never occurs even if baryon number is broken at the low scale. I discuss collider signatures of this model as well as implications for direct and indirect dark matter searches.

**Primary author:** DUERR, Michael (DESY)

**Presenter:** DUERR, Michael (DESY)

**Session Classification:** WED2

**Track Classification:** Dark Matter