

Multiply charged quasi-stable particles at Run-3 and High-Luminosity LHC. Prospects for the discovery.

In recent years more attention was attracted by studies on long-lived charged particles predicted by some of BSM scenarios. We present a highly model independent study targeting colour-singlet and colour-triplet particles, with electric charges up to 8 times the elementary charge. In our work, we assess the possibility to detect such particles during Run-3 and at HL-LHC, by estimating the sensitivity of MoEDAL and ATLAS/CMS detectors. We present the expected upper mass limits on highly charged LLPs.

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