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## **Bounds on masses of dark matter particles in $R^2$ -gravity**

*Friday 11 December 2020 09:20 (20 minutes)*

Particle production by oscillating curvature in  $R + R^2$  cosmology is considered. It is shown that the cosmological density of massive stable relics may be close to the observed density of dark matter. The proper range of mass values depends on the channel of the scalaron decay. In particular it opens the window for heavy supersymmetric particles to be viable dark matter constituents.

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