A Search for Decaying Dark Matter in Galaxy Clusters and Galaxies with IceCube

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What this contribution is about:

- We test decaying dark matter hypotheses using neutrinos.

Why this work is relevant:

- The high-energy astrophysical neutrino data recorded in IceCube allow us to probe heavy dark matter hypotheses using neutrinos.
- This is the first search for decaying dark matter in galaxy clusters and galaxies with IceCube.

What has been done:

- We selected targets and calculated the sensitivities of the analysis, for two different dark matter decay channels.

Result:

- The sensitivities are competitive with the observed limits from other experiments.