

A model of light dark baryons and dark radiation

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We propose a model for dark matter and dark radiation, based on a strongly-coupled dark SU(5) gauge theory with fundamental and decuplet dark-quarks. The model supports light dark-baryons, respecting the chiral symmetry, which are electrically neutral but have electromagnetic form factors, and also a light dark-axion. Since the coupling of dark baryons to the standard model particles is inversely proportional to the square of the confinement scale, dark baryons become either hot dark matter or cold dark matter, depending on when the dark color confines. For the confinement scale $\Lambda \sim 10-10^3$ GeV the dark baryons of mass about 1 GeV-1 MeV become cold dark matter with naturally small magnetic moment and give the correct relic abundance.

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