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The Dark Side of Cosmology: Dark Matter and Dark Energy

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As successful as the current consensus cosmology is, it holds that 96% of the Universe exists in the form of unexplained dark matter (24%) and mysterious dark energy (71%). Unraveling the puzzles of dark matter and dark energy is at the top of cosmology's "to do" list and key to a deeper understanding of our universe. A host of experiments – from the LHC to the Fermi Gamma-ray Space Telescope – are poised to shed light on the nature of the dark matter, and ongoing and upcoming observations of supernovae, galaxy clusters, weak lensing, and large-scale structure should illuminate dark energy.