

Advancing Dark Matter Theory with Black Holes, Exploding Compact Stars, Supercool Gas, and Underground Detectors

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Recent theoretical investigation continues to suggest that dark matter could be either a supermassive or superlight particle. Discovering dark matter at these mass extremes requires radical new approaches. I will survey some fascinating developments, including dark matter that forms black holes in the sun and Earth, dark matter that would make old white dwarfs explode, supermassive dark matter detected through its fusion of nuclei in Antarctic ice, and ultralight photon-mixed dark matter heating supercold gas clouds near the center of the Milky Way.

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Please select: Experiment or Theory

Theory

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