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Exploring the Dark Sector

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Dark sectors, consisting of new, light, weakly-coupled particles that do not interact with the known strong, weak, or electromagnetic forces, are a particularly compelling possibility for new physics. Nature may contain numerous dark sectors, each with their own beautiful structure, distinct particles, and forces. This talk summarizes the physics motivation for dark sectors and the exciting opportunities for experimental exploration. It discusses axions, axion-like particles, dark photons, and other dark-sector particles, including sub-GeV dark matter. In many cases, the exploration of dark sectors can proceed with existing facilities and comparatively modest experiments. A rich, diverse, and low-cost experimental program has the potential for one or more game-changing discoveries.