Dark Forces Beyond the Standard Model
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The existence of dark matter is clear evidence for physics beyond the Standard Model, but the particle nature of dark matter remains unknown. Dark forces, which could mediate dark matter self-interaction or very weak interactions with the Standard Model, can strongly affect the experimental signatures for direct or indirect detection of dark matter. In this talk, I will describe two scenarios motivated by dark forces: production and detection of MeV-scale dark matter through a dark photon at a neutrino experiment, and direct-detection analysis methods which are independent of the dark matter velocity distribution.