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Progress of the TESSERACT Dark Matter Experiment

The TESSERACT project will use a slate of target materials optimized for MeV to few-GeV mass dark matter searches alongside transition-edge-sensors to set world-leading limits on the dark matter/nucleon cross-section. After a brief overview of the experimental goals and sensor technologies, I will discuss the status of the superfluid He-4 target, (HeRALD,) for which multi-channel readout has been demonstrated in two testbeds. Next, I will discuss the ongoing testing of sapphire and gallium arsenide targets (SPICE). Finally, I will briefly discuss additional targets and the outlook for TESSERACT as we move underground for an extended science run in Modane, France in 2028.

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