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Status of the Micro-X Microcalorimeter X-ray Sounding Rocket ANTONIA HUBBARD, Northwestern Univ, MICRO-X COLLABORATION — The Micro-X sounding rocket is designed to use Transition Edge Sensors (TES) to make X-ray observations. The superior energy resolution of TESs compared to traditional space-based X-ray detectors brings new precision to both supernova observations and the X-ray search for sterile neutrino dark matter. Current X-ray observations disagree over the potential presence of a 3.5 keV X-ray line consistent with a sterile neutrino interaction, and Micro-X is in a unique position to establish or refute the presence of this line. The significant engineering challenges of placing sensitive cryogenic detectors on a rocket have been overcome, and testing has moved from system functionality to optimization and integration in preparation for a 2017 launch. In this talk, I will discuss the status of the instrument and expectations for flight observations, with special emphasis given to the prospects of sterile neutrino studies.

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