Contribution ID: **237** Type: **Contributed talk**

Dark Matter Searches with the Micro-X Sounding Rocket

Wednesday 26 July 2017 14:45 (15 minutes)

The Micro-X sounding rocket uses a Transition Edge Sensor (TES) array to make X-ray observations. The improved energy resolution of TESs compared to traditional space-based X-ray detectors brings new precision to both supernova remnant 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. I will present the construction status of the instrument and expectations for flight observations, with special emphasis given to the prospects of sterile neutrino studies.

Author: HUBBARD, Antonia (Northwestern University)

Presenter: HUBBARD, Antonia (Northwestern University)

Session Classification: New Technologies

Track Classification: New Technologies