Contribution ID: **662** Type: **Talk**

AMEGO-X: MeV gamma-ray Astronomy in the Multi-messenger Era

Tuesday 20 July 2021 19:00 (12 minutes)

Recent detections of gravitational wave signals and neutrinos from gamma-ray sources have ushered in the era of multi-messenger astronomy, while highlighting the importance of gamma-ray observations for this emerging field. AMEGO-X, the All-sky Medium Energy Gamma-Ray Observatory eXplorer, is an MeV gamma-ray instrument that will survey the sky in the energy range from hundreds of keV to one GeV with unprecedented sensitivity. AMEGO-X will detect gamma-ray photons both via Compton interactions and pair production processes, bridging the "sensitivity gap"between hard X-rays and high-energy gamma rays. AMEGO-X will provide important contributions to multi-messenger science and time-domain gamma-ray astronomy, studying e.g. high-redshift blazars, which are probable sources of astrophysical neutrinos, and gamma-ray bursts. I will present an overview of the instrument and science program.

Keywords

MeV, medium-energy gamma rays, multi-messenger, instrumentation, future missions,

other Collaboration

AMEGO-X team

Collaboration

other (fill field below)

Subcategory

Future projects

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Session Classification: Discussion

Track Classification: Scientific Field: GAD | Gamma Ray Direct