Seventeenth Marcel Grossmann Meeting



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The Einstein Probe mission

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Launched on January 9th, 2024, the Einstein Probe (EP) is a space X-ray observatory designed to detect mainly high-energy transient and variable sources in the universe. It aims at detecting such sources at unprecedented sensitivity and spatial resolution in the soft X-ray band and performing quick onboard follow-up observations in X-rays. EP carries two instruments, a wide-field X-ray telescope (WXT) to monitor the soft X-ray sky in 0.5-4keV with a 3600 square-degree field-of-view, and a narrow-field follow-up X-ray telescope (FXT) in 0.3-10keV. The WXT is an imaging telescope making use of novel X-ray focusing technology of lobster-eye micro-pore optics. Transient alerts can be downlinked quickly to ground to trigger follow-up observations at multi-wavelengths. The Einstein Probe is a project led by the Chinese Academy of Sciences in collaboration with ESA, MPE and CNES. Since its launch, the satellite has been in the commissioning phase, during which a series tests on the spacecraft and the instruments, and in-orbit calibration are carried out. During this phase a number of X-ray transients have been detected by EP and extensively followed up and studied by the EP science team and by the wider community. This talk will introduce the mission, its status, the instrument performance and preliminary results of the transient sources detected.

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