

Einstein Probe: Exploring the ever-changing X-ray Universe

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The Einstein Probe (EP) is a small satellite dedicated to time-domain astronomy to monitor the sky in the soft X-ray band. It is a mission led by the Chinese Academy of Sciences and developed in its space science programme with international collaboration. Its wide-field imaging capability is achieved by using established technology of the micro-pore lobster-eye X-ray focusing optics. Complementary to this is deep X-ray follow-up capability enabled by a Wolter-I type X-ray telescope. EP is also capable of fast transient alerts triggering and downlink, aiming at multi-wavelength follow-up observations by the world-wide community. EP will enable systematic survey and characterisation of high-energy transients at unprecedented sensitivity, spatial resolution, grasp and monitoring cadence. Its scientific goals are mainly concerned with discovering new or rare types of transients, including tidal disruption events, supernova shock breakouts, high-redshift GRBs, and of particular interest, electromagnetic sources of gravitational wave events. The mission is scheduled for launch by the end of 2023.

Topic

探测设备与技术

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