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Review of the particle background of the ATHENA X-IFU instrument

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Athena is the second large-class X-ray mission of the European Space Agency Cosmic Vision, with a launch foreseen in 2031 towards an L2 halo orbit and dedicated to the study of the hot and energetic universe. X-ray observations are usually severely limited by the background, due to the intrinsic faintness of the astrophysical sources involved or to their diffuse nature. Here we are going to address the particle-induced background of the X-IFU instrument. Above 2-3 keV the background is dominated by two populations of charged particles: low energy particles that are funnelled by the mirrors into the focal plane, and high energy particles, that possess enough energy to travel through the spacecraft and reach the detector from any direction

Topic

Future missions

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