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The IXPE view of GRB 221009A

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GRB 221009A is an exceptionally bright gamma-ray burst (GRB) that reached Earth on 2022 October 9th after traveling through the dust of the Milky Way. The Imaging X-ray Polarimetry Explorer (IXPE) pointed at GRB 221009A on October 11th and measured, for the first time, the 2-8 keV X-ray polarization of both a GRB afterglow and rings of dust-scattered photons which are echoes of the GRB prompt emission. We set upper limits to the polarization degree of the afterglow and the prompt emission of respectively 13.8% and 55% at a 99% confidence level, providing constraints on the jet opening angle of the GRB and other properties of the emitting region. In this contribution, I present on behalf on the IXPE Collaboration the results of the analysis and interpretation of the IXPE observation of GRB 221009A.

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