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# What is the contribution of LECRs to the bright X-ray emission of the molecular clouds at the Galactic center?

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## Abstract

The diffuse X-ray emission in the central degree of our Galaxy includes a bright component correlated with the main molecular clouds at the Galactic center. This emission, characterized by a strong fluorescent iron line at 6.4 keV and associated non-thermal continuum, could in principle be created by either a bombardment by low-energy Cosmic Rays (LECRs) or the reflection of hard X-ray photons. However, X-ray observations accumulated over the past two decades now provide increasing evidence that a major fraction of this diffuse non-thermal emission is due to the reflection of an intense X-ray radiation such as could have originated as past outbursts of the supermassive black hole at the Galactic center. I will review both the observational constraints and their current interpretation, and discuss consequences on the possible contribution of LECRs in this region.

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