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X-rays constraints on sub-GeV dark matter

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Dark matter (DM) constitutes about 85% of the total matter content in the Universe and yet, we don't know anything about its actual nature. In this talk, after an historical introduction, I will present my work on DM indirect detection, more especially the computation of X-ray constraints on sub-GeV (or "light") DM. Photons from the galactic ambient bath see their energy boosted up to X-ray energies when they scatter with electrons or positrons produced by the annihilation or decay of light DM particles. The fluxes of X-rays produced by this process can be predicted and compared with data from X-ray observatories (e.g., INTEGRAL) to obtain competitive constraints on light DM.

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