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Probing self interacting dark matter with inverse bremsstrahlung of gravitational waves. Víctor Fonoll Rubio

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We present the inverse bremsstrahlung (IB) absorption of GWs as a novel approach to GWs physics that can help set constraints on different physical models. The observation of GWs of a given frequency sets constraints on its absorption efficiency, which depends on the characteristics of the medium of propagation. In the case of interacting dark matter, this can translate to constraints on its mass-coupling space. For this, we present a novel approach to parametrize the absorption of GWs in DM halos and in IGM. We find the arising constraints to be less stringent than existing ones.

Classification de Session: Students presentations