

The GAIA impact on Dark Matter Searches

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All Dark Matter (DM) searches, both direct and indirect, are affected by our knowledge (or lack of it) of the DM density/velocities locally as well as in the entire volume of our Milky Way (MW). The GAIA satellite, with its data release 3 (DR3), has revolutionised our knowledge of the Milky Way. Using GAIA DR3 data, I will present the tightest constraint ever of the local DM density, as well as the density of DM over the entire MW up to its edge. Time permitting, I will also present the best estimate of the DM velocity distribution function to date. These can have an immediate impact on DM searches.

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