Title: **Dark Matter in the Milky Way**

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The presence of dark matter on a wide range of astrophysical scales is one of the observational pillars of the current cosmological model. In particular, spiral galaxies are known to be dark matter dominated systems, and one of the most outstanding astrophysical proofs of its existence. Yet, retrieving information about the the dark matter distribution in our very own spiral Galaxy, the Milky Way, is quite challenging. I will first show how a new set of analysis of purely observational data permit to draw strong model-independent conclusions on the presence of DM in the Milky Way and especially in its innermost regions. In a second time, how these very sets of data allow us to both sketch the DM distribution while getting rid of theoretical bias, and to refine analysis based on theoretical priors (i.e. profiles from numerical simulations such as NFW or Einasto) to an unprecedented level of precision. These new results open up an interesting avenue for the study of the dark matter distribution in the Milky Way with forthcoming observational results."