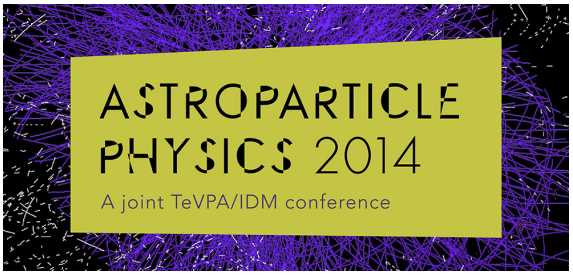

Contribution ID: **67** Type: **Presentation**

Impact of anisotropic distribution functions on direct dark matter detection

Monday 23 June 2014 16:30 (20 minutes)

In analyzing data from dark matter direct detection experiments, usually an isotropic Maxwellian velocity distribution is assumed. However, dark matter N-body simulations suggest that the velocity distribution of dark matter is anisotropic. I will discuss how to use information from kinematical data on the Milky Way to constrain the properties of the dark matter phase space distribution, based on assumptions motivated by the results of N-body simulations. Finally, I will present an analysis of current data from dark matter direct detection experiments for anisotropic halo models, and discuss the impact of astrophysical uncertainties on the interpretation of the data.

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