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## **Determining the Local Dark Matter Density**

Saturday 1 August 2015 14:00 (15 minutes)

Determination of the Dark Matter density at the solar position is critical to direct dark matter searches. Additionally, it is important to make this determination with as few assumptions as possible, as results from direct detection searches are used to explore a wide variety of theoretical models, and hidden astrophysical assumptions could bias theoretical searches. Here we present a Jeans analysis based method for the determination of the local dark matter density which allows us to limit the number of assumptions we need to make. We fit baryon and Dark Matter density models to tracer density and velocity dispersion data via integrated Jeans equations, and from these derive the local dark matter density.

## Collaboration

- not specified -

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