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## **Mr. PATO, Miguel (Padova University): Systematic uncertainties in the determination of the local dark matter density**

*Monday, 13 September 2010 17:15 (15 minutes)*

We quantify systematic uncertainties associated with the determination of the local dark matter density from dynamical measurements in our Galaxy. Using very recent high-resolution numerical simulations of Milky Way like galaxies, we study the effect of baryonic physics on dark matter halos and how this can bias the inference of the dark matter density in our neighbourhood. Such piece of information is crucial in interpreting the results from direct detection dark matter experiments.

**Session Classification:** 6 talks (Chair: Bohdan GRZADKOWSKI)