The cosmic matter dipole problem and weak lensing

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The Ellis and Baldwin formula provides a model-independant way to measure our own velocity with respect to matter at large scale. However, this measurement doesn't coincide with the same measurement with respect to the CMB, which puts into question the existence of the Cosmological Rest Frame [Secrest et al. 2021]. I will explain how LSST will provide an extremely useful data set to work on this issue, and what are the systematics and specificities that have to be taken into account. In particular, I will talk about weak lensing, and its potential impact on this measurement.

Auteur: BONNEFOUS, Albert (Institut d'Astrophysique de Paris)

Orateur: BONNEFOUS, Albert (Institut d'Astrophysique de Paris)