Abstract

Inhomogeneities in the large scale structure introduces some fluctuations in the luminosity distance of supernova type Ia. Peculiar velocity, gravitational lensing, gravitational redshift and integrated Sachs-Wolfe effect are some of most relevant effects. In addition to the above effects, random and systematic errors have also significance impression in the apparent magnitude. In this talk I am going to investigate in detail these terms and explore dipole in the luminosity distance due to the anisotropy in large scale structures. I will review recent finding about direct measurement of Hubble parameter in the new way proposed by C. Bonvin et. Al., PRL 96 191302 (2006). Finally based on results derived in this paper I suggest some tasks to do.