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Seminar of the theory group of APC

Mardi 28 Juin 2016, 14 :00
APC, 483 A - Malevitch
Domaines : hep-th

Titre : *The averaging problem in cosmology*

Orateur : **Jan Ostrowski (Nicolaus Copernicus University, Torun)**

Résumé : *Modern cosmological model (LCDM) relies strongly on the assumption of isotropy and homogeneity of the Universe. The difficulties arise when this assumption is applied to Einstein equation. This is problematic, since in general, the Einstein tensor built from the averaged metric is not equal to the averaged stress-energy tensor. In this context, the discrepancy between these quantities is called 'the backreaction' and has been a subject of scientific debate among cosmologists and relativists for more than 20 years. In my talk I will present one of the methods to tackle this problem, i.e. the Buchert scalar averaging, together with its applications (including the cosmological mass function) and possible drawbacks of this approach.*