FAKULTÄT für PHYSIK LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT TECHNISCHE UNIVERSITÄT MÜNCHEN MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 26.01.2017, 16^{15} Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1 Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Mathias Garny

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Dark matter clustering: New tools from perturbation theory

A plethora of observations ranging from galactic to cosmological scales supports the dark matter paradigm. In the near future, galaxy surveys will map out a significant fraction of the observable universe, and thereby allow us to scrutinize the standard cosmological model. This requires also to obtain accurate theoretical predictions for the clustering of dark matter. For the typical length scales of future surveys, non-linearities play an important role, but are sufficiently weak to allow for a perturbative treatment. In this talk we will review some of these techniques and discuss recent progress based on methods known from quantum field theory.

gez. Peter Thirolf Tel. 289-14064 gez. Norbert Kaiser Tel. 289-12367