

Martedì 3 luglio nella stanza del direttore (Edificio Marconi II piano) si terrà, oltre i già previsti seminari, anche il seminario della Dr.ssa Maria Chiara Angelini, vincitrice della procedura selettiva per RTDA FIS02 02A2

Ore 15.00

Title: Renormalization Group methods for disordered systems

Abstract: Disordered systems, such as spin glasses with or without a field, structural glasses, random field Ising model and so on, have been studied for more than 40 years. Despite large efforts, for some of these models there are still deep questions - the existence or non-existence of a transition in finite dimensions, which are the upper and lower critical dimensions... - without an answer. Perturbative renormalization around the solvable fully connected mean-field models is often not useful to understand what happens in finite dimensions. I will show how to apply non-perturbative renormalization group (RG) methods such as the Ensemble RG, the Migdal-Kadanoff RG, and the M-layer expansion, to disordered systems in finite dimensions, emphasizing the differences between their results and the mean-field solution for the models in infinite dimensions.

Il Direttore Paolo Mataloni