EINLADUNG zum IFP-SEMINAR

Spectral functions of correlated lattice bosons within the B-DMFT

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Host:	Karsten Held
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	Wiedner Hauptstraße 8-10, 1040 Wien
	Seminarraum FH HS 3 (gelber Bereich, 2. OG)

The successful dynamical mean-filed theory (DMFT) for correlated electrons has been followed by its bosonic counterpart B-DMFT. Although bosonic systems have been thoroughly investigated for many years, it is only with the help of B-DMFT that some of their properties, such as spectral functions, can now be fully studied. Inspired by gradually more sophisticated experiments with cold atoms, we calculated momentum dependent spectral functions and dispersion relations of interacting lattice bosons in the B-DMFT approximation. I will talk about the results obtained with different impurity solvers focusing on the regime of parameters, where the phase transition between the Bose-Einstein condensate and Mott insulator takes place and where perturbative methods fail.