

Fluctuation dissipation relation in aging systems

Sergio Ciliberto
ENS Lyon, France

Several experimental aspects of the aging dynamics are discussed. We first introduce the general features of aging. We then describe several experimental procedures, based on the response function, which have been useful to study memory and rejuvenation effects in various materials. A comparison of the results obtained in the different materials is done. The experimental analy-

sis of the violation of the fluctuation-dissipation theorem (FDT) in aging materials is presented. We describe several experiments where the violation has been studied in some details. The amplitude, the persistence time and the observable dependence of the violation observed in the experiments are analyzed. The relevance of these experimental results for recent models of aging is discussed.