## Time flow in non-equilibrium statistical physics

Rudolf Hilfer

ICP, Universitaet Stuttgart, Allmandring 3, 70569 Stuttgart, Germany

The time evolution of macroscopic states (or mixtures) for classical and quantum many body systems need not correspond to a translation group or semigroup. Instead a special class of convolution semigroups appears generically. The presentation will discuss the implications of this finding for the foundations of nonequilibrium statistical physics as well as possible applications to experiment.