

Ageing and dynamical symmetries in non-equilibrium systems without detailed balance

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Ageing phenomena are well-known, both from quenched glasses or simple magnets. Similarly, the phenomenology of simple ageing describes well the non-equilibrium relaxation of several types of interacting many-body systems without detailed balance. Paradigmatic examples are systems with absorbing stationary states such as directed percolation; or growing interfaces as for instance those described by the Kardar-Parisi-Zhang equation. However, the relationship between the associated non-equilibrium exponents are different from those found in systems with detailed balance. This is also reflected in fluctuation-dissipation relationships distinct from what has been found in magnetic systems [1]. The study of ageing properties through an analysis of two-time correlators and responses therefore provides an alternative *route* for the analysis of strongly interacting non-equilibrium systems.

Finally, we shall also discuss to what extent dynamical scaling functions can be described by local extensions of dynamical scaling. In particular, we shall explain a recent proposal of a logarithmic extension of local scale-invariance [2,3].

[1] M. Henkel, J. D. Noh and M. Pleimling, Phys. Rev. **E85**, 030102(R) (2012).

[2] M. Henkel, arXiv:1009.4139 (2010).

[3] M. Henkel, arXiv:1205.5901 (2012).TBA