J. Berges: *Gauge fields far from equilibrium*

Gauge field dynamics out of equilibrium plays a crucial role for our understanding of high-energy physics, ranging from collision experiments of heavy nuclei to early-universe cosmology. Some important aspects of this dynamics may be simulated using ultracold atoms. As a first example I discuss universal properties far from equilibrium, which arise from the presence of a nonthermal fixed point in the space-time evolution of non-Abelian plasmas. A second example concerns fermion pair production in QED following a strong initial electric field pulse. In 1+1 dimensions striking phenomena such as 'string breaking' for the linear rising potential building up between produced fermion bunches may be studied in real time!