

# Großes Physikalisches Kolloquium an der Universität zu Köln



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16<sup>30</sup> Uhr  
HS III

## **Classical Statistical Physics Out of Equilibrium**

Equilibrium statistical physics provides a bridge between microscopic dynamics and macroscopic behavior. It explains the emergence of thermodynamic concepts such as temperature and pressure, and accounts for collective phenomena like phase transitions. By contrast, a comparable understanding of systems out of equilibrium remains elusive, and is the focus of intense research across many areas of physics. In this talk, I will concentrate on a particular class of nonequilibrium dynamics: those realized in classical integrable systems. I will demonstrate how modest extensions of standard statistical physics tools can capture the long-term behavior of these systems in various ways, illustrating the results with a simple model.