Stochastic Numerics and Stability Issues
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Stochastic Differential Equations (SDEs) have become a standard modelling tool in many areas of science, e.g., from finance to neuroscience. Many numerical methods have been developed in the last decades and analysed for their strong or weak convergence behaviour. In this talk we will provide an overview on current directions in the area of stochastic numerics and report on recent progress in the analysis of stability properties of numerical methods for SDEs, in particular for systems of equations. We are interested in developing classes of test equations that allow insight into the stability behaviour of the methods and in developing approaches to analyse the resulting systems of equations.