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DK Summer School 2019

August 26-30, 2019
Weissensee, Kärnten, Austria

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Dynamics of chemical reaction networks

With mass action kinetics, every chemical reaction network can be translated into a polynomial system of ODEs. This results in a rich class of dynamical systems, including gradient systems, oscillating systems, etc. In this mini-course I will present old and recent results on the stability of detailed and complex balanced equilibria (using an entropy like function) and discuss open problems such as the global attractor conjecture.