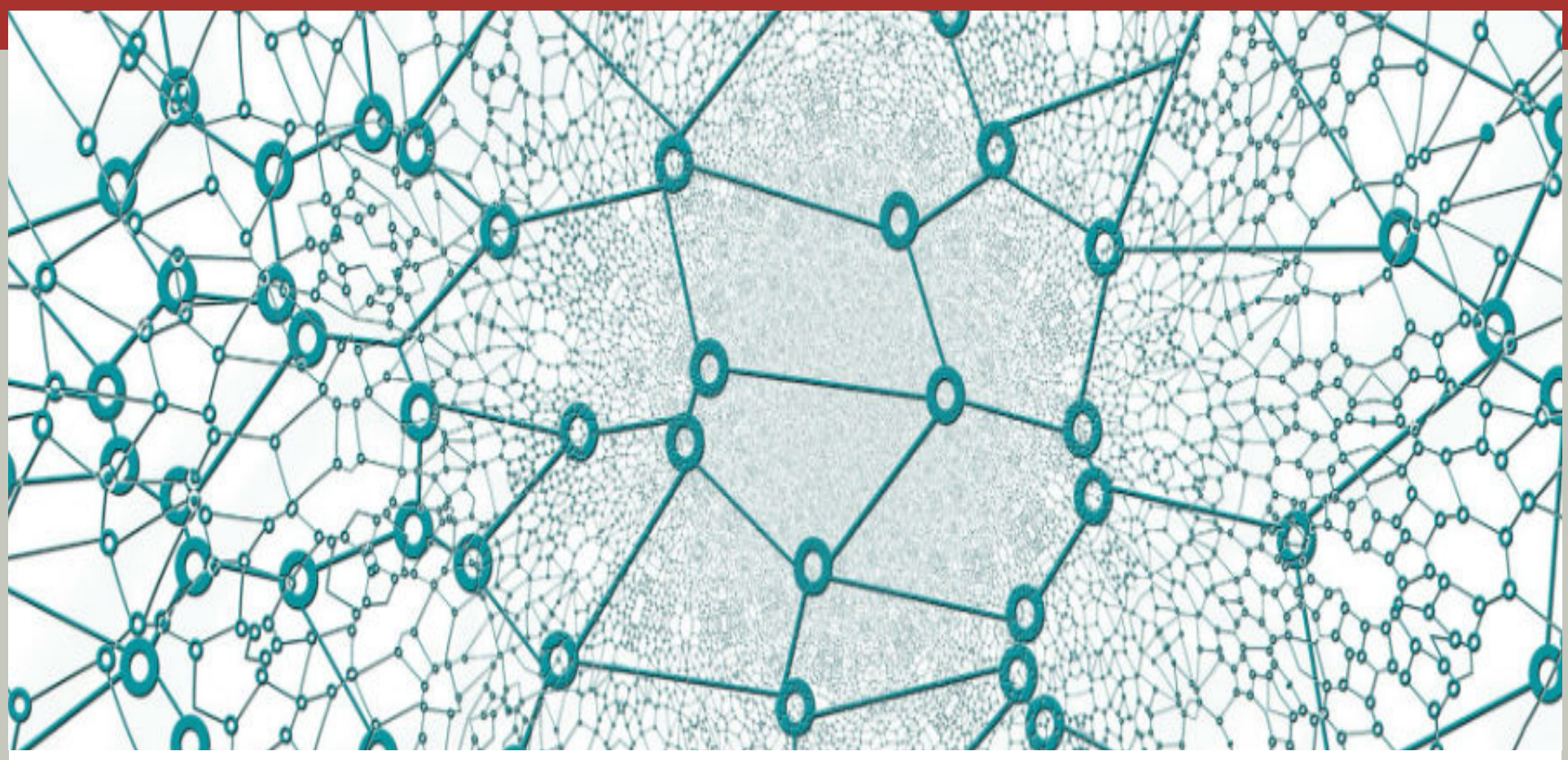
ETH zürich



SG Seminar

Mathematical Foundations of Early-Warning Signs and Resilience

In this talk, I am going to first provide an overview of the development of early-warning sign theory for critical transitions (or tipping points). These techniques have emerged building upon results from bifurcation and phase transition theory. In particular, I shall focus on finite-dimensional stochastic systems and then also point out very recent results for infinite-dimensional stochastic dynamics. Then, I am briefly going to cover results emphasizing the use of topology in network dynamics. Finally, I will outline the beginning steps of a mathematical theory of resilience, which is currently being developed.

Prof. Christian Kuehn
Technical University of Munich, Germany

When: Wednesday
12th October 2022
09:15 - 10:15

Where: ETH Zürich
Rämistrasse 101
HG E 41

More information available at
https://www.sg.ethz.ch/

Chair of Systems Design