

Wednesday, February 3, 2021  
2:00 PM (Attention, changed time!)

## Network Dynamics and Dynamical Networks

Philipp Hövel

University College Cork  
School of Mathematical Sciences

Networks are everywhere. From the social networks both online and offline, distant and close connections to interactions and wiring in the brain, nearly any problem can be transferred to a network science embedding. The key idea is to define appropriate nodes and links that form the network. In addition, many processes can be modeled by (nonlinear) dynamical systems to investigate questions of stability, switching, fixed points, periodic orbits etc. Combining networks with dynamics provides powerful synergies to describe complex systems that consist of many interacting units. Further extensions are possible as well, if the local node dynamics have an impact on the structure of the underlying network.

In my presentation, I will summarize core aspects of dynamics on and of networks along the lines of selected examples and will demonstrate how the universal and combined power of network science and nonlinear dynamics can be unleashed.

**Access to the Zoom-Meeting:**

<https://uni-kiel.zoom.us/j/89783278309?pwd=WXhnUllFOWFmL2hkOEp5NUt6RXh6Zz09>

Meeting-ID: 897 8327 8309

Kenncode: 988298

Schnelleinwahl mobil

+496971049922,,89783278309#,,,,,0#,,988298# Deutschland

+493056795800,,89783278309#,,,,,0#,,988298# Deutschland

Download the iCalendar files (.ics) and import the monthly appointment into your calendar system:

<https://uni-kiel.zoom.us/meeting/tZ0qf-qqqTMpGt2DE1NWQk2D8r->

[Em3fRWHDc/ics?icsToken=98tyKuGhqTMpGNODsxmORpx5B4qgb-rwtlxejbcPuDq0LRdiaVHSbvAPF78sFurn](https://uni-kiel.zoom.us/j/89783278309?pwd=WXhnUllFOWFmL2hkOEp5NUt6RXh6Zz09)

*The KiNSIS Colloquium will take place as an online meeting  
on the first Wednesday of each month at 12 noon.*

*If you would like to present a topic that might be interesting  
for other KiNSIS members,  
please contact Julia Jedtberg ([jfr@tf.uni-kiel.de](mailto:jfr@tf.uni-kiel.de))*