



## Chunming Zheng

MPI for Physics of Complex Systems, Dresden

### Transition to Synchrony in the Three-Dimensional Noisy Kuramoto Model

We investigate the transition from incoherence to global collective motion in a three-dimensional swarming model of agents with helical trajectories, subject to noise and global coupling. Without noise this model was recently proposed as a generalization of the Kuramoto model and it was found, that alignment of the velocities occurs for arbitrary small attractive coupling. Adding noise to the system resolves this singular limit.

The Seminar will take place online via Zoom as part of the Oberseminar “Nonlinear Dynamics” organized by Bernold Fiedler (FU Berlin), Isabelle Schneider (FU Berlin), Eckehard Schöll (TU Berlin) and Matthias Wolfrum (WIAS). For information on how to access the event, please contact any of the above or: [henning.reinken@itp.tu-berlin.de](mailto:henning.reinken@itp.tu-berlin.de)

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**Tuesday, 08.06.2021 · 15:15h**