

Institute for Analysis and Scientific Computing, and Doctoral Program "Dissipation and Dispersion in Nonlinear PDEs"

Mathematical modeling of collective motion in biology and life sciences

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<u>Contents:</u>

• Systems of self-propelled particles, the Cucker-Smale model as a proptotypical example, asymptotic flocking.

- Attraction-repulsion-orientation model. Milling, double-milling and other patterns.
- Models with noise and delay.
- Mesoscopic and hydrodynamic descriptions and their well posedness.

Time and location:

09:00 - 10:30

DA green 03B: 07.05.,
09.05., 14.05., 16.05., 28.05.,
30.05., 04.06., 06.06.
DB yellow 05A: 08.05.,
15.05., 29.05., 05.06.

- FH HS7: 17.05., 07.06.
- DA green 04: 06.06. exceptionally 15:00-16:30

