

Physikalisches Kolloquium



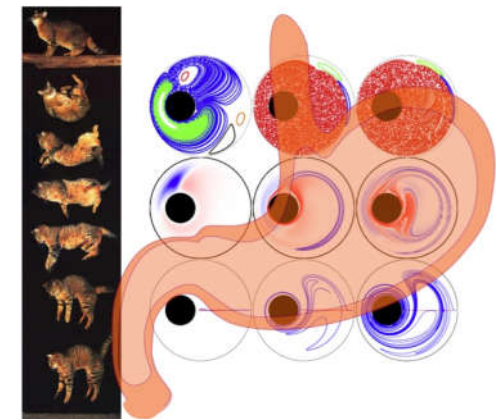
Thursday, 17.05.2018, 16:15, HS 100
Reception with coffee & cookies 15:45
 (For university staff: please bring your own cup for sustainability reasons)

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Geometric phases in the mixing function of the stomach (the “belly” phase)

Abstract

Relationships between the dynamical and geometrical aspects of transport and mixing in fluids flow at low Reynolds number regimes will be discussed. Mixing in containers with deformable walls executing a cycle in the space of the forms will be presented as a paradigm for geometric mixing. An example of systems of this kind is the stomach, where walls are subject to cycles of peristalsis responsible for both the transport and the mixing of food and gastric liquids to form the chyme. It is speculated that the correct functioning of the stomach as a mixer, depends on its ability to induce "geometric phases" through these peristaltic cycles.



All of you interested in physics are cordially invited!