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Faculty of Physics

Topology in Biology

14 November 2022



The Physics Colloquium is a series of public lectures hosted by the Faculty of Physics of the University of Vienna, featuring internationally renowned speakers covering the full breadth of our fields of research.

Julia Yeomans

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www.physics.ox.ac.uk/our-people/yeomans

Topology in Biology

Active materials such as bacteria, molecular motors and self-propelled colloids are nature's engines. They extract energy from their surroundings at a single particle level and use this to do work. Dense active matter shows meso-scale turbulence, the emergence of chaotic flow structures characterised by high vorticity and self-propelled topological defects. I will discuss the physics of defects in active materials and describe examples where the concepts of active matter are being used to describe cell motility and morphogenesis.

Monday, 14 November at 13:30–15:00

A light lunch buffet will be offered before the lecture at 13:00.

Lise-Meitner lecture hall

Faculty of Physics, University of Vienna
Strudlhofgasse 4, 1090 Vienna

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