



SECTION DE PHYSIQUE

COLLOQUE DE PHYSIQUE

24, QUAI ERNEST-ANSERMET, CH-1211 GENÈVE 4

Lundi 11 novembre 2019, 12h30
Ecole de Physique, Auditoire Stueckelberg

«Physics of Living Systems»

Prof. Karsten Kruse
Université de Genève

Physics and Biology have a long common history and both disciplines have very much benefitted from this interaction. With spectacular advances in microscopy techniques and in our ability to manipulate organisms genetically, a new era in this relationship has begun. In particular, it has become evident that collective effects are at the core of many processes in living cells and in developing organisms. Not only has physics proven to be indispensable for understanding these processes in depth. Their studies have also unveiled the necessity to extend existing physics approaches to describe living matter. This has notably led to the physics of active gels. After some historical remarks, I will discuss several examples of active gel physics including the emergence of spontaneous flows and the dynamics around topological defects. I will end with some remarks about Life.

Une collation en compagnie du conférencier sera offerte après le colloque.

Prof. Dmitry Abanin