



Invitation to Course

Biological Physics

Instructors: Tobias Bollenbach, Gašper Tkačik

Course Description:

This course will introduce concepts and techniques from statistical physics, thermodynamics, and dynamical systems theory, and apply them to key problems in biology. Questions we will address include: What distinguishes biological processes from equilibrium phenomena? How do biological molecules and cells move? What are the physical principles underlying gene regulation? What is the role of fluctuations in biology and what are the tools for describing them? We will illustrate these topics with specific examples, including some from synthetic biology.

Coursework: Grading: 50% final exam, 50% homework,
Homework: 5 problem sets, 6 recitations, every 2 weeks

Course schedule: Friday, 9:00-10:45, 90 minute lecture; recitations Tuesdays 10:00-12:00

Course Academic Credits: 3 ECTS credits

Course Website: <http://pub.ist.ac.at/courses/2012/biologicalphysics>

Courses start Friday, March 2, 2012 (9:00-10:45 am)

**Seminar Room Mondi 2 (only first class!), IST Austria Central Building, 1st floor,
then Seminar Room Mondi 3, IST Austria Central Building, 1st floor**



2012-03-02

Please register for the course a week in advance with Academic Affairs (Marie.Trapp@ist.ac.at)

This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage (note that the IST Shuttle times are highlighted in dark green):
http://www.ist.ac.at/fileadmin/user_upload/pdfs/IST_shuttle_2011.pdf

The IST Shuttle bus is marked IST Shuttle (# 242) and has the Institute Logo printed on the side.