



Invitation to Course

Quantitative Biology

Instructors: Călin Guet, Michael Sixt, Gašper Tkačik

Course Description:

The course will cover advanced topics in biology based on recent research results with an emphasis on theoretical and experimental techniques.

Topics to be discussed are: bacterial chemotaxis and signal transduction in biochemical networks, inference of regulatory interactions from data, zeroth order ultrasensitivity, the role of diffusion processes in biology and measurements of diffusion using fluorescence correlation spectroscopy, random walks as tools to characterize macromolecules, application of beam theory to describe molecular and cellular architecture.

Coursework: Grades will be based on classroom participation, solutions to homework questions, and performance in final exam.

Course schedule: 2 weekly 75 min lectures Mondays and Wednesdays, 1 weekly 50 min recitation

Course Academic Credits: 3 ECTS

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

Courses start Monday, May 7, 2012 (3:15 – 4:30 pm)
Seminar Room Mondri 3, IST Austria Central Building, 1st floor



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.