

PHYSICS
MATERIALS
SCIENCE
CHEMISTRY
BIOLOGY

Seminar

“IRTG: Soft Matter Science “

Modelling the self-assembly of amphiphiles with self-consistent field theory

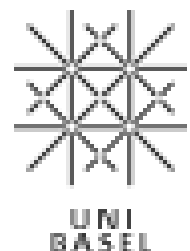
Dr. Martin Greenall

Membranes and microforces, Institut Charles Sadron, Strasbourg
greenall@unistra.fr

Wednesday, Nov. 3, 2010

14H15

“Hörsaal Makromolekulare Chemie”,
Stefan-Meier-Str. 31, Freiburg



Self-consistent field theory (SCFT) is a fast computational method that gives insights into a wide range of phenomena in the self-assembly of polymers and lipids. In this talk, I will give an introduction to SCFT and illustrate both its strengths and limitations with examples from recent research, with a particular emphasis on self-assembly in solutions containing more than one type of amphiphile. I will then describe current research projects in the Membranes and Microforces group at the Institut Charles Sadron in which SCFT is being used in tandem with experiment to investigate the control of vesicle formation in a variety of systems.