The Course of the PhD School in" Nano- and Physical Sciences" 2008

"DNA, Proteins, and Lipids: the basic bricks of living matter" (Prof. Paolo Facci)

including

1) Introduction: What is Biophysics? Chosen examples. The beginning of Biophysics: The Miller's experiment. The chemical bases of life. The Physics of matter of biological origin. The nucleic acids: chemistry, structure, superstructures.

2) The proteins: chemistry, structures. The protein folding process. Molecules assisting protein folding in bacteria: chaperonines. DNA-protein interaction: higher order structures of DNA; modulation of gene expression level in procaryotes. The protein synthesis. The genetic code.

3) Biological membranes. Lipids. Membrane proteins. Biophysics of excitable membranes. Voltage dependent ion channels.

will be held in the following days at Physics Department Aula D

19 November ore 14-17

26 November ore 14-17

27 November ore 14-17

Focus Groups will be arranged at the end of the course

The Director of the PhD School in " Nano- and Physical Sciences"
Prof. Stefano Ossicini