

PhysBio2011 - Physics and Biological Systems Final Program

	Tuesday, June 14, 2011	Wednesday, June 15, 2011	Thursday, June 16, 2011	Friday, June 17, 2011
0845 - 0910	Registration			
0910 - 0915	Opening Remarks: F. Livolant and O. Martin			
0915 - 0920	Welcome address by: C. Colliex and M. Mézard			
Session I				
Chairperson	Béatrice Satiat-Jeunemaitre	Alexandra Walczak	Silvio Franz	François Képès
0920 - 1005	Emmanuel Beaurepaire	Michael Lässig	Erik Aurell	Albert-László Barabási
1005 - 1050	Irene Georgakoudi	Martin Weigt	Massimo Vergassola	Pieter Rein ten Wolde
1050 - 1130	Coffee Break and Registration	Coffee Break and Poster session I	Coffee Break and Poster session II	Coffee Break and Poster session III
Session II				
Chairperson	Emmanuel Barillot	Marie-Claude Marsolier	Olivier Rivoire	Emmanuel Trizac
1130 - 1215	Riccardo Zecchina	Enzo Marinari	Nigel Goldenfeld	Albert Libchaber #
1215 - 1300	Chris Sander	Ulrich Gerland	Uri Alon	Jacques Prost
1300 - 1430	Lunch Break			
Session III				
Chairperson	Gerald Kneller	Debora Marks	Christian Colliex	Vincent Fromion
1430 - 1515	Hervé Isambert	Vincent Hakim	Nathalie Balaban	François Nedelec
1515 - 1600	Matteo Marsili	Frank Jülicher	David Bensimon	Jean-François Joanny
1600 - 1630	Coffee Break and Poster session I	Coffee Break and Poster session II	Coffee Break and Poster session III	Closing Remarks
Session IV				
Chairperson	Jean-Louis Sikorav	Marc Mézard	Dominique de Vienne	
1630 - 1715	Kim Sneppen	Terence Hwa	Edda Klipp	
1715 - 1800	Dennis Bray	Jean-Pierre Changeux #	Albert Goldbeter	
1800 - 1900	Poster Session I	Poster Session II	Poster Session III	

Keynote Speakers (1 hour talks)

Speaker	Title of Talk
Uri Alon	Design principles of biological circuits
Erik Aurell	Optimal protocols and optimal transport in the physics of small systems
Nathalie Balaban	Regulation of phenotypic variability by a threshold based molecular mechanism
Albert-László Barabási	Networks Medicine: From cellular networks to the human diseaseome.
Emmanuel Beaurepaire	Nonlinear microscopy of tissues and morphogenesis
David Bensimon	Single molecule mechanical sequencing of DNA
Dennis Bray	Conformational spread - theory and experiment
Jean-Pierre Changeux	Models of the brain: from genes to consciousness
Irene Georgakoudi	Quantitative tissue diagnostics based on non-linear optical imaging of endogenous contrast
Ulrich Gerland	Heterogeneous timing as a regulation strategy
Albert Goldbeter	Temporal self-organization of the regulatory network driving the mammalian cell cycle
Nigel Goldenfeld	The statistical mechanics of hallucinations and the evolution of the visual cortex
Hervé Isambert	Negative selection from whole genome duplication
Vincent Hakim	Some computational attempts to draw and understand genetic networks
Terence Hwa	Growth laws and catabolite repression: the emergence of physiological simplicity from molecular complexity
Jean-François Joanny	Instabilities of epithelial tissues
Frank Jülicher	Dynamic organization of developing tissues
Edda Klipp	Cellular stress response with impact on cell cycle – a modeling study for Baker's yeast
Michael Lässig	Survival of the fattest, the flattest, or the fastest? The role of fluctuations in biological evolution
Albert Libchaber	Temperature Gradients at the Molecular Scale
Enzo Marinari	Metabolic networks: a thermodynamical analysis based on the Von Neumann approach
Matteo Marsili	Inference and critical phenomena
François Nedelec	The organization of the mitotic spindle
Jacques Prost	Violating and restoring the fluctuation dissipation theorem
Pieter Rein ten Wolde	The robust ticking of a circadian clock
Chris Sander and Debora Marks	3D Protein Structure from Sequence alone
Kim Sneppen	Modeling Nucleosome mediated epigenetics
Massimo Vergassola	Strategies of bacterial chemotaxis
Martin Weigt	Integrating statistical-physics inspired inference with molecular dynamics and mutagenesis: From genomic information to protein (complex) structures
Riccardo Zecchina	The inverse spread problem