# CS2Bio'13

## 4th Int. Workshop on Interactions between **Computer Science and Biology** 6th of June 2013 - Florence, Italy

### http://cs2bio13.di.unito.it/

Affiliated to DisCoTec'13

We solicit contribution of original results from Mathematics, Physics, Complex Systems, and Computational Sciences, addressing both theoretical and applied work on the comprehension of biological behaviour.



Systems Biology is a stimulating field of application for computer scientists and a promising resource for biologists. Aim of this workshop is to gather researchers interested in the convergence of Computer and Life Sciences.

Submission deadline 26 March 2013 Notification to authors 03 May 2013

#### **Topics of interest include**

Formal Biological Modelling: Formal methods for the representation of biological systems and their dynamics (rewrite systems, process calculi, graph grammars, hybrid systems, etc.); Theoretical links and comparisons between different formal models for the modelling of biological processes; Quantitative (probabilistic, timed, stochastic, etc.) languages and calculi; Spatial (geometrical, topological) languages and calculi; Prediction of biological behaviour from incomplete information; Model checking, abstract interpretation, type systems, etc.

Novel Computational Paradigms for Understanding Biological Complex Systems: Quantum information and life sciences; Geometry, algebraic and computational topology and biomathematics; Information processing and biomedicine; Statistical mechanics and biophysics.

Tools and Simulations: Modelling, analysis and simulation tools for systems biology; Emergence of properties in complex biological and medical systems; Tools for parallel, distributed, and multi-resolution simulation methods; Detailed biological case-studies.

#### **Invited Speakers**

**Giuseppe Longo** (ENS Paris, France) Mario Rasetti (ISI Foundation, Italy)

#### **Program Committee**

- Luca Cardelli
- Frik de Vink
- Jasmin Fisher
- Paola Giannini
- Radu Grosu
- Jean Krivine
- Pietro Lio'
- Daniele Manini
- Emanuela Merelli (Co-chair)
- Paolo Milazzo
- Ion Petre
- Marco Pettini
- Christian Reidys
- David Safranek
- Luca Tesei
- Angelo Troina (Co-chair)
- Verena Wolf

#### Sponsor: **Topology Driven**



#### **Dissemination**

Workshop proceedings: Elsevier ENTCS Journal special issue: Elsevier TCS