

# International Conference on Living Technology

Friday 25<sup>th</sup> May

Aula Magna Ca' Dolfin

## Public Lecture

Thursday 24<sup>th</sup> May, Venice

18:00 Aula Magna Ca' Dolfin

### *L'evoluzione dei Robot tra Biologia e Ingegneria*

Dario Floreano, Politecnico Federale di Losanna, Svizzera

Introduced by:

- Irene Poli, Co-director ECLT
- Antonio Marcomini, ProRector University of Ca' Foscari
- Ralph Dum, European Commission

9:00–9:30 Introduction

N. Packard: *Living Technology*

### **SESSION I: Protocells / Synthetic Biology**

Session Chair: F. KEPES

9:30–10:15 S. Rasmussen

*Living technology based on self-replicating materials*

10:15–11:00 L. Luisi

*Chemical synthetic biology approaches to the biogenesis of macromolecules and early cells*

11:00–11:30 Coffee Break

11:30–12:15 G. Von Kiedrowski

*Systems chemistry: from chemical self-replication to virus-shaped biomimetic artefacts*

12:15–13:00 J McCaskill

*Complementation Systems for Genetic Self-assembly*

13:00–14:30 Lunch

### **SESSION II: Computation, the internet, and the world wide web**

Session Chair: P. BOURGINE

14:30– 15:15 S. Kirkpatrick

*Dynamical Geography of the Internet*

15:15– 16:00 O. Babaoglu

*Techniques for Decentralized, Self-Organizing and Robust Solutions in Dynamic Information Networks*

16:00–16:30 Coffee Break

16:30– 17:15 S. Nolfi

*Behaviour as a Complex Adaptive System: Insights from Evolutionary Robotics Experiments*

17:15– 18:00 C. Priami

*Computational Modeling in Biology*

18:15 Aperitivo at Ca' Minich

Saturday 26<sup>th</sup> May  
Aula Magna Ca' Dolfin

### **SESSION III: Theoretical Perspectives**

Session Chair: R. BOZIO

9:00–9:45 P. Hogeweg

*Evolutionary Information Accumulation:  
speciation, regulation and/or evolvability*

9:45–10:30 S. Jain

*Large scale biochemical networks and systems  
biology*

10:30–11:00 Coffee Break

11:00–11:45 W. Fontana

*Rules rule: Modeling and analyzing  
combinatorially complex biological pathways*

11:45–12:30 M. Bedau

*The creative evolution of technology*

12:30–14:00 Lunch

### **SESSION IV: Social networks and communication**

Session Chair: D. PUMAIN

14:00– 14:45 D. Lane

*Darwinism and Sociocultural Change: From  
Population to Organization Thinking*

14:45–15:30 S. Van der Leeuw

*The role of cognition and communication in the  
emergence of social organization*

15:30–16:00 Coffee Break

16:00–16:45 L. Steels

*Artificial Language Evolution with Humanoid  
Robots*

16:45– 17:30 D. Parisi

*Communicating Artefacts*

17:30 Conference closing