

# SCHEDULE

## ATELIER SCHEDULE

The ateliers are intended for participants who want to acquire technical know how for carrying out experiments in artificial language evolution and/or using complex systems methods for analyzing human or artificial language development. Participants are encouraged to bring their own computers. Software will be made available (for different operating systems).

### FRIDAY 13 JULY Arrival and Social Drink

### SATURDAY 14 JULY

- 9.15 Welcome (Luc Steels)
- 9.30 Construction Grammar for Non-linguists I (Laura Michaelis)  
Why we Believe (or should Believe) that Syntax is Construction-Based
- 10.10 (Symbolic) Programming for Non-(symbolic) programmers I (Joachim De Beule)
- 10.50 coffee break
- 11.20 Complex Systems for Non-physicists I (Andrea Baronchelli)
- 12.00 Language Games I (Luc Steels)
  
- 13.00 lunch
- 15.00 Construction Grammar II (Benjamin Bergen)
- 15.40 (Symbolic) Programming II (Joachim De Beule)
- 16.20 coffee break
- 16.50 Complex Systems II (Andrea Baronchelli)
- 17.30 Language Games II (Luc Steels)
- 18.20 Joint Dinner

### SUNDAY 15 JULY

- 9.30 Construction Grammar III (Bill Croft)
- 10.10 (Symbolic) Programming III (Joachim De Beule)
- 10.50 coffee break
- 11.20 Complex Systems III (Andrea Baronchelli)
- 12.00 Language Games III (Luc Steels)
  
- 13.00 lunch

Each day of the school the atelier continues with two activities:

- (i) Technical atelier: deepening of technical know how for running language game experiments
- (ii) Master class: opportunity for further discussion with speakers on topics raised that day in the language lectures.

# SCHOOL SCHEDULE

## *Main School starts*

### SUNDAY 15 JULY

- 15.00 Welcome and Opening (Luc Steels and Vittorio Loreto)
- 15.40 **Dietrich Stauffer** (Cologne University Germany)  
*Interdisciplinary Physics: Language Competition*
- 16.10 coffee break
- 16.50 **Jean-Marie Hombert** (CNRS, Lyon, France)  
*From Language to Languages*
- 17.30 **Francesco d'Errico** (CNRS, Bordeaux, France)  
*The archaeology of language origin or the search for the best fitting Model*
- 19.00 Drinks and Social Dinner

### MONDAY 16 JULY

#### **Opinion Dynamics I**

- 9.10 **Sidney Redner** (Boston University, MA, USA)  
*The Dynamics of Consensus and Clash*
- 9.50 **Claudio Castellano** ("Sapienza" Univ. of Rome, Italy)  
*The Axelrod model for cultural dissemination: role of noise, peer pressure and homophily.*
- 10.30 **Santo Fortunato** (Institute for Scientific Interchange, Torino, Italy)  
*Phenomenology of Social Dynamics.*
- 11.10 coffee break

#### **Language I: Emergent Communication**

- 11.40 **Susan Goldin-Meadow** (University of Chicago, IL, USA)  
*Gesture's Role in Creating and Learning Language*
- 12.20 **Bruno Galantucci** (Haskins Lab, Yale Univ., USA)  
*Studying the emergence of human communication systems in the laboratory*
- 13.00 lunch

#### **Atelier**

- 13.30 *Technical Atelier: Implementing Language Games on Robots*  
(with Martin Loetzsch, Michael Spranger, and Pieter Wellens)
- 14.15 *Master Class Emergent Communication*  
(with Susan Goldin-Meadow and Bruno Galantucci)

### **Semiotic Dynamics I**

- 15.00 **Alain Barrat** (Université de Paris-Sud, Orsay, France)  
*Agreement dynamics on interaction networks: the Naming Game paradigm*
- 15.40 **Jose J. Mendes** (Dept. De Fisica, Universidade de Aveiro, Portugal)  
*The structure of complex networks*
- 16.20 coffee break

### **Social Dynamics I**

- 16.50 **Matteo Marsili** (International Centre of Theoretical Physics (ICTP), Trieste, Italy)  
*Coordinating on volatile network: A simple model*
- 17.30 **Damian Zanette** (Centro Atomico Bariloche, Rio Negro, Argentine)  
*Models of Agent-network Coevolution*
- 18.20 Panel on Opinion Dynamics  
**Chair: Serge Galam** (short talk)
- 21.30 Evening event  
**Francois Pachet** (SONY-CSL, Paris, France)  
*The meaning of music*

## **TUESDAY 17 JULY**

### **Opinion Dynamics II**

- 9.10 **Gerard Weisbuch** (Ecole Normale Supérieure (ENS), Paris, France)  
*Hiking the hypercube*
- 9.50 **Maxi San Miguel** (Univ. de les Illes Balears, Palma de Mallorca, Spain)  
*Language competition as an example of social consensus*
- 10.30 **Katarzyna Sznajd-Weron** (University of Wroclaw, Poland)  
*Opinion dynamics in personal and economical areas – do they differ?*
- 11.10 Coffee break

### **Language II: Construction Grammar**

- 11.40 **Laura Michaelis** (University of Colorado, CO, USA)  
*Traces of Grammar Evolution: Protoconstructions, Amalgams and Mismatch Effects*
- 12.20 **Benjamin Bergen** (Dept. of Linguistics, University of Hawaii, USA)  
*The dynamics of language learning*
- 13.00 lunch
- 13.30 *Technical Atelier: Computational Construction Grammar*

- (with Joachim De Beule)  
14.15 **Master Class: Construction Grammar** (with Laura Michaelis and Benjamin Bergen)

### **Games and Language**

- 15.00 **Massimo Warglien** (University *Ca' Foscari*, Venezia, Italia)  
*The emergence of language : an experimental economics perspective*  
15.40 **Hannelore Brandt** (University of Wien, Austria)  
*Indirect reciprocity, reputation and moral hazard*  
16.20 coffee break

### **Semiotic Dynamics II**

- 16.50 **Natalia Komarova** (Dept. of Mathematics, University of California, Irvine, USA)  
*Darwinean Models of Language Evolution*  
17.30 **Andrea Baronchelli** (Univ. Politècnica de Catalunya, Barcelona, Spain)  
*Cultural Route to the Emergence of Linguistic Categories*  
18.20 Panel on Language Evolution  
**Chair: William S.-Y. Wang** (The Chinese Univ. of Hong Kong, China)  
21.30 Evening Event  
**Michael E. Fisher** (University of Maryland, MA, USA)  
*Atoms and Ions: Universality, Singularity and Particularity: some lessons from a half-century of statistical physics*

## **WEDNESDAY 18 JULY**

### **Semiotic Dynamics III**

- 9.30 **Ciro Cattuto** (Centro "E. Fermi" and "Sapienza" Univ. of Rome, Italy)  
*Stylized facts in social tagging systems*  
10.10 **Takashi Ikegami** (Tokyo University, Japan)  
*Dynamical systems approach to emergence of communication*  
10.50 coffee break

### **Language III: Grammaticalisation and Language Evolution**

- 11.20 **Salikoko Mufwene** (University of Chicago, IL, USA)  
*Grammaticization in Language Evolution*  
12.00 **Jim Hurford** (University of Edinburgh, UK)  
*The Origins of Meaning*  
12.40 lunch

- 13.30 *Technical Atelier*: Computational experiments in grammaticalisation  
(with Remy Van Trijp and Pieter Wellens)
- 14:15. *Master Class*: Grammaticalisation in natural languages  
(with Salikoko Mufwene and Bill Croft)

### Short-talks session

- 15.00 **Flemming Topsoe** (University of Copenhagen, Denmark)  
*Stability and flexibility of natural languages*
- 15.15 **Les Gasser** (University of Illinois, Champaign, IL, USA)  
*Some core dilemmas of Language evolution*
- 15.30 **Stanislaw Cebrat** (Wroclaw University, Poland)  
*How the local, limited interactions affect the evolution?*
- 15.45 **Mikhail Malyutov** (Northeastern University, Boston, MA, USA)  
*Conditional Complexity of compression of query text slices for attributing their authorship*
- 16.00 Poster session and coffee break
- 17.00 **Language IV: Special OMLL Session**  
**Chairman: Prof. P. Ramat** (University of Pavia, Italy)
- Eva Hoogland** (European Science Foundation)  
**Itziar Laka** (University of Basque Country)  
**Nuria Sebastian** (University of Barcelona).  
**Christophe Coupé** (CNRS Dynamique du Langage, Lyon)
- 18.20 Panel on the "Two cultures"  
**Chair: Israel Rosenfield** (City University of New York, USA)

## THURSDAY 19 JULY

Concluding Session

### Language V: Future Challenges

- 9.30 **Bill Croft** (Dept. of Linguistics, University of New Mexico, USA)  
*The evolution of utterances: a usage-based theory of language change*
- 10.10 **William S.-Y. Wang** (The Chinese University of Hong-Kong, China)  
*The Dynamics of Language Evolution*
- break
- 11.20 Concluding Panel – End of Main School Program
- 13.00 lunch
- 14.00 Atelier participants get an opportunity to present their own work and/or the work they have been doing in the course of the school in informal discussions.