

## RESEARCH CONFERENCES

ESF-COST High-Level Research Conference

# Future Internet and Society: A Complex Systems Perspective

Hotel Villa del Mare \* Aquafredda di Maratea \* Italy  
2 - 7 October 2010

Chair: **Romualdo Pastor-Satorras**, Universitat Politècnica de Catalunya, ES

Co-Chair: **Claudio Castellano**, CNR-ISC (Istituto dei Sistemi Complessi) & Sapienza Università di Roma, IT

Programme Committee: **Thibaut Lery**, ESF, FR; **Gian Mario Maggio**, CREATE-NET, IT; **Alain Peyraube**, CNRS, FR; **Peter Richmond**, Trinity College Dublin, IE; **Fabrizio Sestini**, EU DG INFSO, BE; **Caroline Whelan**, COST Office, BE

[www.esf.org/conferences/10341](http://www.esf.org/conferences/10341)



# Final Programme

---

## Saturday 2 October

---

Late afternoon/ early evening	Registration at the ESF-COST desk
19:30-21:00	Dinner
21:00	Welcome Drinks

## Sunday 3 October

---

08:30-09:00	<i>Words of Welcome</i>
09:00-09:30	<i>Introduction by ESF and COST</i>

### Session 1

09:30-10:20	<b>Kimmo Kaski</b> Helsinki University of Technology, FI <i>Opinion and community formation in co-evolving networks</i>
10:20-10:50	Coffee break
10:50-11:40	<b>Petter Holme</b> Umeå University, SE <i>The dynamics of Internet intermediated partner formation</i>

### Short Talks

11:40-11:55	<b>Adolfo Paolo Masucci</b> Universitat de les Illes Balears, ES <i>Content-based networks and the semantic web of Wikipedia</i>
11:55-12:10	<b>Johannes Bauer</b> Michigan State University, US <i>Modeling the Internet and its governance as a complex adaptive system</i>
12:10-12:25	<b>Maksim Kitsak</b> University of California, San Diego, US <i>Identifying influential spreaders in complex networks</i>
12:30-14:30	Lunch

### Session 2

14:30-15:20	<b>Jure Leskovec</b> Stanford University, US <i>Exploring the structure of on-line social networks: The role of positive and negative links</i>
15:20-16:10	<b>Petra Ahrweiler</b> University College Dublin, IE <i>Innovation processes in complex socio-economic systems: An ICT perspective</i>
16:10-16:30	Coffee break

## Short Talks

- 16:30-16:45 **Naoya Fujiwara**  
Potsdam Institute for Climate Impact Research, DE  
*Synchronization dynamics in mobile oscillator networks*
- 16:45-17:00 **Przemyslaw Grabowicz**  
University of the Balearic Islands, ES  
*Heterogeneity shapes groups growth in social online communities*
- 17:00-17:15 **Andrea Baronchelli**  
Universitat Politecnica de Catalunya, ES  
*Effects of network heterogeneity on opinion spreading*
- 17:15-17:30 **Tranos Emmanouil**  
Newcastle University, UK  
*The complexity of the space of flows*
- 17:30-17:45 **Tara Hennessy**  
NUI Galway, IE  
*The lifecycle of online communities*

## Evening Lecture

- 18:00-19:00 **Walter Willinger**  
AT&T Labs Research, US  
*The Internet as a techno-socio-economical system: A reality check for network science*
- 19:00 Dinner

## Monday 4 October

---

### Session 3

- 09:00-09:50 **Ciro Cattuto**  
Complex Networks and Systems Group, ISI Foundation, IT  
*Weaving on-line connections on real-world interactions*
- 09:50-10:40 **Bosiljka Tadic**  
Jozef Stefan Institute, SI  
*User communities and emotional behavior in cyberspace*
- 10:40-11:10 Coffee break
- Short Talks**
- 11:10-11:25 **Pieter Ballon**  
Vrije Universiteit Brussel, IBBT, BE  
*Platforms and models for large-scale end-user experimentation for the future Internet: Current European experiences with Living Labs*
- 11:25-11:40 **Stefan Christmann**  
University of Goettingen, DE  
*Web 2.0-based opinion making in political parties: Co-evolution of politics and the Web*
- 11:40-11:55 **Giulia Rotundo**  
University of Tuscia, IT  
*Complex networks in symbolic images*
- 11:55-12:10 **Schahram Dustdar**  
TU Vienna, AT  
*Self-adaptation in socio-computational future Internet systems*

## Information

12:10-12:30 **Fabrizio Sestini**  
European Commission, BE  
*Call for applications "Internet Science"*

12:30-14:30 Lunch

## Session 4

14:30-15:20 **Noshir Contractor**  
Northwestern University, US  
*Network science meets web science: The emergence of multidimensional networks*

15:20-16:10 **Harith Alani**  
The Open University, UK  
*Semantics, sensors, and the social web*

16:10-16:30 Coffee break

## Poster Session

16:30-18:00 *Exhibition*

## Evening Lecture

18:00-19:00 **Andrea Scharnhorst**  
Royal Netherlands Academy of Arts and Sciences, NL  
*Web science or web research? Changing research practices in the social sciences and humanities*

19:00 Dinner & Football match

## Tuesday 5 October

---

## Session 5

09:00-9:50 **Filippo Menczer**  
Indiana University, US  
*How we navigate social information networks: analysis and modeling of web and wikipedia traffic*

09:50-10:40 **Ricardo Baeza-Yates**  
Yahoo Research Lab, ES  
*Next generation search*

10:40-11:10 Coffee break

## Short Talks

11:10-11:25 **Joseph G. Davis**  
The University of Sydney, AU  
*Conceptualizing the evolving service ecosystems on the Internet*

11:25-11:40 **Leopoldina Fortunati**  
University of Udine, IT  
*The Internet and the human voice*

11:40-11:55 **Agata Fronczak**  
Warsaw University of Technology, PL  
*Scaling of fluctuations in complex systems*

11:55-12:10 **Christian Doerr**  
TU Delft, NL  
*Are social relations overrated?*

12:10-12:25

## Jose Luis Gomez-Barroso

UNED - Universidad Nacional de Educacion a Distancia, ES

*Mobile search as the gateway for the future (i.e. mobile) internet*

12:30

Lunch

afternoon

Half-day excursion

19:00

Pizza party & Music

## Wednesday 6 October

### Session 6

09:00-9:50

#### Didier Sornette

ETH Zurich, CH

*The dynamics of success and fame: YouTube, open source software, social networks, cyber-risks*

09:50-10:40

#### Enrico Gregori

National Research Council CNR Pisa, IT

*The impact of IXPs on the AS-level topology structure of the Internet*

10:40-11:10

Coffee break

### Poster Session

11:10-12:00

Exhibition

### Short Talks

12:00-12:15

#### Eduardo Altmann

Federal University of Rio Grande do Sul, BR

*Language and collective social behaviour in Usenet discussion groups*

12:15-12:30

#### Guenther Sagl

Research Studios Austria, Studio iSPACE, AT

*Large-scale collective fluctuations: Human dynamics seen by a cellular network*

12:30-14:30

Lunch

### Session 7

14:30-15:20

#### Angel Sanchez

Universidad Carlos III, ES

*Modelling human interactions on networks: Lessons learnt from theoretical and experimental Games*

### Short Talks

15:20-15:35

#### Symeon Papavassiliou

National Technical University of Athens, GR

*Interactions among physical, logical and social network viewpoints:  
An autonomic evolutionary loop*

15:35-15:50

#### Gian Mario Maggio

CREATE-NET, IT

*Co-evolution of the Internet and the information society: A complex systems perspective*

15:50-16:05

#### Anna Chmiel

Warsaw University of Technology, PL

*Flow of emotional messages in artificial social networks*

16:10-16:40

Coffee break

## Evening Lecture

16:40-17:40

Alessandro Vespignani

Indiana University, US

*Computational modeling and the forecast of socio-technical systems*

## Forward Look Plenary Discussion

17:40-18:10

*Discussion*

20:00

Get-together & Conference Dinner

## Thursday 7 October

Breakfast & Departure