

# ASSYST

## Complex Systems Society

Number 14, January 2011 | [www.assystcomplexity.eu](http://www.assystcomplexity.eu) | [www.cssociety.org](http://www.cssociety.org)

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## Happy New Year!

A new year is starting. This is the time to review past activities, make conclusions, think carefully about it, and get inspiration to face the new challenges appearing in the horizon.

The most representative event for the Complex Systems research community during last year was the ECCS conference. This number reviews our conference through statistics, and lists the relevant features of it. Some of its most interesting satellite meetings are reported, such as "Policy making in complex adaptive systems", "Young Researchers Session at ECCS'10", "International Latino America Committee of the Complex Systems Society", and "Modelling the non-separability of a very complex world". Finally, after reviewing the past we take a look to the very promising future in Vienna, which will receive the 2011 edition of the European Conference on Complex Systems.

Welcome to the January issue of the ASSYST/CSS Newsletter. As you will notice in the on-line version (<http://www.assystcomplexity.eu>), the Newsletter is using an innovative way of being presented in your computer. A new age for the on-line edition is just starting, and we are all in the front-line.

More exciting new ideas are being prepared to appear in the Newsletter pages during this New Year. Stay attentive!

-- The ASSYST Team



# ECCS'10 in Numbers

By the ECCS'10 Organizing Committee



The European Conference on Complex Systems was held in Lisbon, from the 13th to 17th September, 2010, an organization of the Complex Systems Society.

Following the previous ECCS conferences, this edition was the most representative meeting of the Complex Systems research community during the year, as it is depicted by the following features and statistics:

- 8 invited plenary speakers presented their talks at the IUL auditorium.
- Real-time Internet streaming was provided for all the plenary talks and debates. These sessions were viewed in different regions all over the world.
- 66 complete papers were accepted and presented in 6 main conference parallel tracks.
- 104 posters were presented in the Posters and Demos Sessions.
- 138 talks were presented during 12 parallel satellite meetings.
- 212 talks (plenary + tracks + satellites) were presented during 5 days.

- 27 other invited speakers were present at the satellite meetings and plenary debates.
- 99 talks are presently available at the ASSYST Digital Library (<http://www.assystcomplexity.eu/video.jsp>).
- 10 awards and 32 special mentions were given.
- 23 grants for young researchers were provided.
- 22 organizers worked for the conference.
- 383 participants were present during the conference.

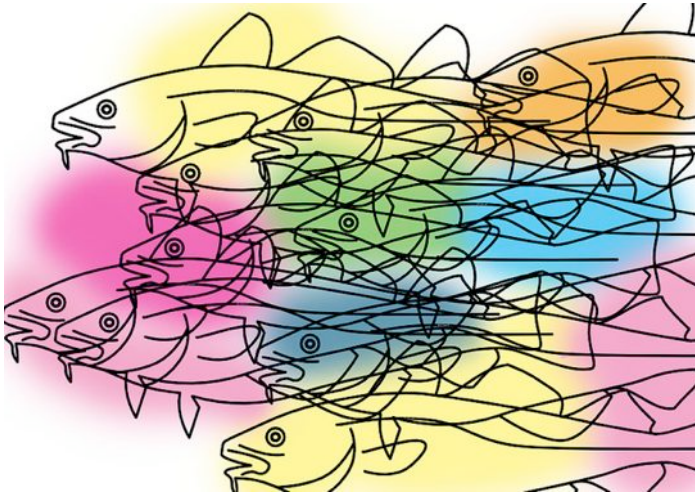
2010 was also the year of consolidating some of the 2009 edition most innovative features, such as:

- The Young Researchers Session, allowing students discussing their on-going research.
- The ECCS Challenge, concerning applying complexity sciences techniques to examine a given dataset.
- The Global Problems Panel, discussing climate change and economic crises.

Finally, a reference must be done to the new dimensions introduced in the 2010 edition of the conference:

- The Philosophy of Science was considered as a specific domain in the main conference, integrated in Track B
- Demos were integrated in the Posters Sessions
- The Video Competition was a success, both concerning scientific content and creativity

ECCS conferences are the image of a very dynamic and exciting research community; we are, in this beginning of the year, getting ready for ECCS'11 in Vienna, that will surely continue and improve previous editions.



## Best paper awards

The best paper money awards are offered by Springer.

1st prize - 400 Euros

### "A stochastic model of autocatalytic reaction networks"

Authors: Alessandro Filisetti, Roberto Serra, Marco Villani, Rudolf M. Fuchslin, Norman Packard, Stuart A. Kauffman, and Irene Poli

2nd prize ex aequo - 200 Euros each paper

### "A stochastic model of social interaction in wild house mice"

Authors: Nicolas Perony, Barbara König, and Frank Schweitzer

### "Modularity Measure of Networks With Overlapping Modules"

Authors: Anna Lazar, Danel Abel, and Tamas Vicsek

### "Population Dynamics on Complex Food Webs"

Authors: Gian Marco Palamara, Vinko Zlatic, and Guido Caldarelli

### "The Unreasonable Effectiveness of Tree-Based Theory for Bond Percolation on Networks with Clustering"

Authors: Sergey Melnik, Adam Hackett, Mason A. Porter, Peter J. Mucha, and James P. Gleeson

## Best poster awards

The two ex aequo best poster awards will have free registration at ECCS'11. The best poster awards are supported by the ASSYST project.

### "Aging in a Language Change Model", by Gareth Baxter

### "Data Integration Models", by Bruce Edmonds

## Challenge award

The Challenge award allows a free registration for the Vienna ECCS'11 conference, plus travel support of up to 500€. The winner is responsible for organizing the next Challenge, to happen in the ECCS'11 conference in Vienna. The ECCS'10 Challenge is supported by the ASSYST project.

Gianluca Campanella

## Best demo mention

"Rule 3D – A Cellular Automaton Tool for the study and generation of 3D Patterns", by Filipe Casal Ribeiro, José Monteiro and Luís Miguel Serrano

## Best video mention

Elected by the "young researchers" during the conference.

"Complex Determinism", by António Fonseca

# Report on the ECCS'10 Satellite Meeting: Policy making in complex adaptive systems

**Organisers: Sylvie Occelli, Yasmin Merali, Ferdinando Semboloni, Jeff Johnson and Jorge Louçã**

[http://www.eccs2010.eu/sm\\_policy](http://www.eccs2010.eu/sm_policy)

**D**uring the Lisbon ECCS'10 conference the ASSYST steering group organized a meeting aimed to prompt an investigation of the contributions complexity science could bring into policy making. The meeting was also meant to set the basis for research activities to be actively pursued by the CSS community. The rationale of the meeting built upon the acknowledgement that on the one hand the increasing complexity in current societal concerns calls for more effective tools and methodology to support the current practices. On the other one, the progress made in ICT technologies and computational approaches make available novel ways of policy design that, on their turn, bring about (require) new forms of institutional organizations and management. Whereas policy-making could be loosely understood as an activity favouring the alignment between the internal and external complexity of Human Complex Adaptive Systems (HCAS), innovation in policy making is a necessary condition for these systems to improve their adaptation capability.

To stimulate discussion the following set of questions were suggested:

1. Framing the methodological aspects: can we identify (meta) categories of HCAS relevant processes (i.e. related to the wicked problems, the policy design levels), which might be dealt with by certain strategies of modelling approaches (or which are likely to require the development of certain kinds of ICT tools?). Can we provide a map of this matching?
2. Framing the contents of policy making. In an increasingly ICT based Human Complex Adaptive System, which entities (processes) should be targeted (and managed) by policy making? How to link short-term policy actions with long term/higher level strategic ones? How this linking would affect current forms of department organization and collaborations? Additional issues dealing with the innovation of policy making contents concern:
  - the role of civil society and NGOs - is there a way of exploiting ICTs to engage civil society in the definition, development and delivery of policy outcomes?;
  - The co-evolution of local and global level policy targets, and outcomes. Is there a

smarter way of combining global and local resources selectively to deliver better outcomes, possibly more efficiently? Is distributed management and a degree of local autonomy a way to go? If so, how do we design policy processes? Can we learn from ICT design principles and the distributed mechanisms in biological systems?

3. From policy making to policy agency. We suggest a view that a policy be considered as an agent. This has a lot of consequences in terms of accounting of the policy actions and evaluation of their impacts. Which currently used approaches should be best exploited? Which novel computing tools are likely to be required? (i.e. intelligent comprehensive data-base systems, Internet application services for sharable information, etc.)
4. Policy learning/education: in HCAS, innovation is instantiated / mediated by humans. How can we exploit the introduction of new ICT application to leverage improved (innovative) ways of coordination (coordinated actions) within and between governmental departments or among governmental departments and research centres?

Eleven participants, D.Lane, E.Mittleton Kelly, P.Allen, L.Varga, C.Costea, J.P. Esperança, J. Johnson, F. Semboloni, D. Paolotti and J.Pitt, engaged into the discussion. Their contributions mainly addressed issues related to questions mentioned under sub b) and sub d). One general aspect which was made apparent in all the contributions, in spite of the differences in perspectives and contents, was the need to probe further into the *overall policy production process* (practices, rules, institutional tasks and societal relationships) which is going to be increasingly affected by ICT impact. As the complexity features of policy actions are progressively exposed, and their consequences on the well-being of society and viability progressively acknowledged, the findings of complexity based approaches can be leveraged to support action strategies likely to be more successful in achieving socially desirable goals. This is a co-evolutionary process which calls for mutual changes in all the system components.

# Report on the ECCS'10 Satellite Meeting: Young Researchers Session at ECCS'10

*Organizers: David MS Rodrigues, Iain Kusel, Larisa Mihoreanu, Andrea Apolloni, Martine J. Barons and António Fonseca*

<http://phd.eccs2010.eu>

During ECCS'10 held in Lisbon a Young Researchers Satellite Meeting occurred on September 15th. This meeting followed the inaugural meeting held the year before at Warwick's ECCS'09 Conference, and was aimed at building a protected environment where young researchers (mainly those still doing their PhDs) could discuss and present their work.



Emphasis was on creating a stimulating and interactive environment, with a focus on the bigger questions at large within complex systems research. To this end, presenters were asked to allude to the 'bigger picture' questions within their domain and in complex systems science as a whole from their perspective. Crucially, we aimed to establish a collaborative environment that will continue after ECCS'10 to foster these links. This environment helped participants to be comfortable in the remainder of the conference with extra confidence, allowing young researchers to be part of the scientific process ensemble rather than being reduced to a spectator role early, in their careers.

David M.S Rodrigues, Iain Kusel, Larisa Mihoreanu, Andrea Apolloni, Martine J. Barons and António Fonseca organized the satellite meeting that had 13 accepted submissions. Besides the PhD students that submitted their research papers, the Young Researchers Session had the honour of receiving 3 young keynote speakers. Anders Lyhne Christensen from ISCTE (**Experiments in Swarm Robotics**), Vitorino Ramos from LaSEEEB and GeNeura (**Assembling the superset of 4 critical research areas in Complexity: Evolution, Self-Organization, Cognition and Network Topology**) and David Chavalarias from CREA, CNRS (**TINA: mapping the science for scholars and decision-makers**). Each of them gave insightful talks and discussed aspects of their research with the participants that affect young researchers in the beginning of their own careers.

As a spinoff of the Young Researchers Session, the Complex System Society promoted a informal meeting with the Young Researchers attending ECCS'10 and created an Young Researchers Committee within its organization (YoCo - <http://cssociety.org/YoCo>). This committee aims to help young researchers across Europe (but not limited to Europe) in their careers, finding jobs, proposing workshops, organizing events at conferences and probably most important, creating awareness for complex systems and complexity theory within their respective fields and labs.

After the conference the organizers of YRS, received positive feedback from the participants that with the main negative feedback of the participants being the time allocated for each one, which was considerably shorter than last year. This will be taken into account in future sessions and it is likely that next years Conference in Vienna (ECCS'11) the YRS session will take these suggestions into consideration.

It is our belief that the European Conference on Complex Systems offers a perfect environment for young researchers to expose their ideas and projects and the networking opportunities provided by this conference to the Satellite Meeting organizers contributed significantly to the success of the Young Researcher Session at ECCS'10. For this we'd like to thank the ECCS'10 organizers.

# Report on the ECCS'10 Satellite Meeting: ILACS - International Latino America Committee of the Complex Systems Society

*Organizers: Carla Taramasco, Andrés Véjar, and Jonás Carmona*

<http://ilacs.csregistry.org/Satellite+Meeting+2010>

The main goal of the International Latino America Committee of Complex Systems Society (ILACS) is to form a hub between emerging researchers/laboratories in order to introduce the CSS, identify common areas of research, make teams of scientific collaboration and analyze cooperation agreements or projects in CS science and their applications.

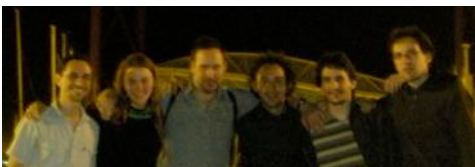
The satellite meeting that we organized in ECCS'10 allowed us to find interesting researchers; introduce the committee to a wide audience; join new people to our projects and future projects; and improve in general the visibility of the ILACS. It was divided into three parts: A short introduction about the ILACS (15 min.). Presented by Carla Taramasco, Andrés Véjar and Jonás Carmona. Three talks on different CS topics (30 min. each one + 10 min. questions) with a coffee break (25min.). The speakers were: Francisco Prieto (CETA-CIEMAT), Jonathan Platkiewicz (Département d'Etudes Cognitives, ENS, Paris), Fernando Peruani (Max-Planck Institute for the Physics of Complex Systems), and the committee workshop (45 min.). We discussed past and future activities, and formulated the ILACS' goals for upcoming years.

As Spanish-speaking scientists, it is not easy to use our mother tongue in our field; therefore, creating a space in science where Spanish can be used is vital. Although not all the satellite meeting was in Spanish, we were able to develop part of it in our mother tongue.

Other important objectives of our meeting were to present our UNITWIN project (University Twinning and Networking) to a large audience: not only the people attending the satellite meeting, but also the Complex System Society Council; and include new supporters to it. ILACS is promoting an UNITWIN/UNESCO project to investigate the possible ways that Complex Systems Science can be taught in developing countries by devising and testing new ways of teaching, and running pilot projects.

Finally the satellite meeting helped to promote the diffusion and creation of a CS workgroup (Sisco) in Sevilla (Spain). Sisco has started to work in November with seminars every two weeks, a wiki (<http://ilacs.csregistry.org/tiki-tiki-index.php?page=LA+sevilla&>) and an email list ([sisco@upo.es](mailto:sisco@upo.es)) including research groups on natural computing, grid computing, philosophy and logics, sociology, ecology, cellular and developmental biology.

Los esperamos en nuestra wiki y los invitamos a formar parte de estas iniciativas.



From left to right: Fernando Peruani, Carla Taramasco, Francisco Prieto, Andrés Véjar, Jonás Carmona and Jonathan Platkiewicz

# Report on the ECCS'10 Satellite Meeting: Modelling the non-separability of a very complex world

**Organisers: Kirsty Kitto, Fabio Boschetti and Peter Bruza**

<http://www.per.marine.csiro.au/staff/Fabio.Boschetti/context.htm>

**A**t times, we wonder whether complex system science is actually more complex than other sciences. While CSS has traditionally addressed non-separable behaviour 'within' systems, we still struggle when we need to model situations of contextuality where the system depends on factors traditionally deemed 'external' to it, including, among others, measurement, historical contingency, environmental conditions, cultural assumptions and mental states in human systems. Do we really need to store endless tables of conditional probabilities to account for this? Is analytical analysis really beyond reach? These are questions of practical relevance: the semantic web, machine translation, real-world decision making beyond 'homo economicus' approximations, human perception of risk and the ability of community to address social dilemmas are just some examples of areas where addressing contextuality is crucial for scientific progress.



From left to right: closing debate with James Crutchfield, Michel Bitbol, Bruce Edmonds and John Symons

These questions are not new, but at times get forgotten and to reconsider them we organised the 'Modelling the non-separability of a very complex world' workshop at the recent ECCS10. The invited speakers, Professors Crutchfield, Sornette and Bitbol framed the question within their respective computational, data driven and philosophical specialties, while the contributed talks from Dr Boeckx, Dr Kitto discussed how issues of contextuality have traditionally been addressed in quantum physics and in linguistics.

The outcome of the workshop is a cautious optimism that the last word on the subject has not been said yet. We saw that analytical and numerical techniques describing how internal structures and behaviours couple with external factors and context exist, so do theoretical frameworks to account how measurements affect system behaviour and thus its response to novel pressures. However, these techniques currently speak different mathematical and numerical languages and find roots in different theoretical approaches which make their interaction, and indeed their interpretation, difficult. This is high-risk research, with deep philosophical and mathematical challenges, but with potential great intellectual and practical rewards: CSS at its best.

# Report on the ECCS'10 Satellite Meeting: High Throughput Humanities

**Organizers: Maximilian Schich, Sune Lehmann, Riley Crane, and Gourab Ghoshal**

<http://hth.eccs2010.eu>

**W**ith the advent of the 21st century, increasing amounts of data from the domain of qualitative humanities and social science research have become available for quantitative analysis. Private enterprises (such as Google Books and Earth, Youtube, Flickr, Twitter, Freebase, IMDb, among others) as well as

public and non-profit institutions (such as Europeana, Wikipedia, DBPedia, Project Gutenberg, WordNet, Perseus, etc) are in the process of collecting, digitizing, and structuring vast amounts of information, and creating technologies, applications, and services (such as Linked Open Data, Open Calais, Amazon's Mechanical Turk,

ReCaptcha, ManyEyes, etc), which are transforming the way we do research. Digging into the data of all these projects we often find complex structure and dynamics that is well beyond the scope of traditional qualitative approaches.

Starting from this insight, the High Throughput Humanities satellite event at ECCS2010 in Lisbon established a forum for high throughput approaches in the humanities and social sciences, within the framework of complex systems science. The symposium aimed to go beyond massive data acquisition, presenting results beyond what can be manually achieved by a single person or a small group. Bringing together scientists, researchers, and practitioners from relevant fields, the event has stimulated and facilitated discussion, sparked future collaborations, and connected approaches, methods, and ideas.

The main goal of the event was to present novel results based on analyses of Big Data (see NATURE special issue 2009), focusing on emergent complex properties and dynamics, which allow for new insights, applications, and services. Utilizing a complex systems approach to harness these data, the organizers and contributors of the event aimed to make headway into the territory of traditional humanities and social sciences, understanding history, arts, literature, and society on a global-, meso- and granular level, using computational methods to go beyond the limitations of the traditional researcher.

The High Throughput Humanities satellite program combined a calculated mixture of invited as well as contributed talks, both setting striking examples as well as probing the space of unknown yet relevant research. As such the event was an experiment, describing a new, still disperse field on the verge of a phase transition, shortly before forming a proper scientific community. Originating in an informal lunch discussion of a classic art historian gone quantitative and a physicist with an itch to usurpate traditional humanities questions, the organizers were curious to see what is out there, while in the same time eager to help advancing collective progress in the matter.

With the reception of our Call for Papers we learned an important lesson that becomes clearly visible in the enclosed figure, where we can see two word clouds, one for our call (to the left), and another one for our speaker's abstracts (to the right). One can clearly see that there is a

huge difference: While we called for humanities, high throughput, and complex[ity], our speakers mostly focused on social, networks, and information, with an even bigger emphasis on data. On closer inspection of the abstracts, the interpretation of this difference is

simple: While we were successful to attract physicists and other researchers coming from the established complex systems science community, practitioners with a traditional humanities background did respond less. At the root of this phenomenon is most likely the difference in funding, which simply does not allow humanities researchers to attend conferences charging hundreds of Euros, but probably also a lack of awareness for the issues of complexity and high throughput among traditional humanities researchers.



That said, the event in Lisbon on September 15, 2010 was a great success, with a packed audience of up to 80 people throughout the day, engaged discussions, and the occasional enthusiastic tweet by some of the attendants. The keynote was presented by Alan Mislove, whose 'Pulse of the Nation' video on measuring the mood of millions of Twitter posts peaked 250.000 viewers on Youtube shortly before our event. Invited and contributing speakers included physicists, computer scientists, linguists, archaeologists, and other researchers presenting complex structure and dynamics in areas ranging from social interactions of musicians, the science of flavour, human economic trajectories, linguistic corpora, internet mediated prostitution, to issues regarding the quantification of genocide.

The moral of the story is twofold. On the one hand we have learned that we must do a better job in explaining the nexus of complexity and high throughput to traditional practitioners in the humanities in order to spark their interest. On the other hand, judging by the enthusiastic feedback from our audience in Lisbon as well as the presented results coming mostly from the complex systems community itself, we have also seen that High Throughput Humanities is of genuine interest to the complex systems community. As a consequence it remains a desire on behalf of the satellite organizers that respective conferences calls also include humanities when referring to "all aspects of Complex Systems Science."

Selected papers of the High Throughput Humanities event at ECCS2010 will be published in Leonardo Journal (MIT Press). Videos will be available along with the full program at <http://hth.eecs2010>



# ECCS'11 Announcement and Call for Satellites

by *Stefan Thurner (Conference Chair) and Karl Sigmund (Programme Chair)*

<http://eccs2011.eu/>

Dear Friends and Colleagues,

It is a pleasure to invite you to the European Conference on Complex Systems 2011 (ECCS'11), which will take place in Vienna, September 12-16, 2011.

The idea of the conference is to bring together the diverse communities engaged and interested in Complex Systems research, ranging from the Life Sciences to Physics, from Computer Science to Social Science, from Mathematics to Origin of Life, and from Networks to Policy Implications. We will feature a fine selection of inspiring keynote and invited speakers, awards, and panel discussions on hot topics. At that time of the year Vienna will offer a wide variety of cultural events, including concerts, operas, museums, coffee and wine houses.

For further information please visit our website at <http://eccs2011.eu>. Please feel free to spread this information to interested colleagues and institutions.

At this time we would like you to mark the following dates:

**Nov 4 2010 - Jan 7 2011** Call for satellites

**Jan 1 2011 - Apr 1 2011** Call for abstracts (talks + posters)

**Jan 1 2011** - Start for early registration

**Jan 28 2011** - Decision Satellites

**Jun 1 2011** - Decision papers and posters

**Sept 12-16 2011** Main Conference

## NOW OPEN: CALL FOR SATELLITES

We plan to have a series of satellites in all aspects of Complex Systems Science in the Life Sciences, Economics, Social Sciences, Evolution, Mathematics, Physics, Computer Science, Infrastructure and policy implications.

If you would like to organize a Satellite please send an informal max 3 page proposal (plain ascii) to [contact@eccs2011.eu](mailto:contact@eccs2011.eu) before Jan 7 2011. In the subject line please use 'satellite proposal ECCS11'.

The proposal should contain title, organizers, goals, prospective audience, similar previous meetings, preliminary agenda, paper selection standards, duration of the meeting (half day, full day or two days), names, affiliations, postal addresses, phone numbers, and email addresses of the proposed satellite organizing committee and program committee mailing lists, web sites, journals, etc. where the satellite meeting will be advertised.

Looking forward to welcoming you in Vienna next year,

for the organizers

Stefan Thurner (Conference Chair)

Karl Sigmund (Programme Chair)

**ECCS'11 Vienna**

European Conference on Complex Systems  
September 12-16, 2011

### Systems Approach to Studying Animal Sociality: Individual Position versus Group Organization in Dynamic Social Network Models

In a series of simulation experiments based on dynamic social networks, we test the prediction that social behaviors that help individuals reach prominence within their social group may conflict with their potential to benefit from their social environment.

In PLoSOne <http://assystcomplexity.eu/short/?id=96>

### OpenAIRE opens access to EU scientific results

OpenAIRE will provide a network of open repositories providing free online access to knowledge produced by scientists receiving grants from the Seventh Framework programme (FP7) and European Research Council (ERC), especially in the fields of health, energy, environment, parts of Information & Communication Technology and research infrastructures, social sciences, humanities and science in society

In OpenAIRE <http://www.openaire.eu/>

### Big segment small segment global optimization algorithm on networks

(...)we propose a global optimization technique (Big Segment Small Segment) for solving single facility location problems on a network when the location of the facility can either at nodes or along the links of the network

In Networks <http://assystcomplexity.eu/short/?id=97>

### High speed ant colony optimization CMOS chip

Ant colony optimization (ACO) is an optimization computation inspired by the study of the ant colonies' behavior. This paper presents design and CMOS implementation of the ant colony optimization based algorithm for solving the TSP problem

In Expert Systems with Applications  
<http://dx.doi.org/10.1016/j.eswa.2010.09.017>

### Communities and dynamical processes in a complex software network

we explore the community structure of a real complex software network, and correlate this modularity information with the internal dynamical processes that the network is designed to support

In Physica A <http://dx.doi.org/10.1016/j.physa.2010.10.026>

### Earth project aims to 'simulate everything'

It could be one of the most ambitious computer projects ever conceived.

An international group of scientists are aiming to create a simulator that can replicate everything happening on Earth - from global weather patterns and the spread of diseases to international financial transactions or congestion on Milton Keynes' roads.

In BBC News <http://www.bbc.co.uk/news/technology-12012082>

### Log-Periodic Oscillation Analysis and Possible Burst of the "Gold Bubble" in April - June 2011

This working paper analyzes the gold price dynamics on the basis of methodology developed by Didier Sornette. Our calculations indicate that this dynamics is close to the one of the "bubbles" studied by Sornette and that the most probable timing of the "burst of the gold bubble" is April - June 2011.

In arXiv <http://arxiv.org/abs/1012.4118>

### Topological stability criteria for synchronized coupled systems of non-identical oscillators

Individual dynamical units that are coupled via an interaction network can synchronize spontaneously without central regulation. The propensity to synchronize depends on structural properties of the interaction network. Certain network properties such as heterogeneity and diameter have been studied extensively, however sometimes with conflicting conclusions.

In arXiv <http://arXiv.org/abs/1012.0722>

# Conferences and workshops

<http://assystcomplexity.eu/conferences.jsp>

## ICAART2011

3rd International Conference on Agents and Artificial Intelligence  
Rome, Italy  
28 Jan 2011 to 30 Jan 2011

## WiVS 2011

1st International Workshop WiVS 2011: Flexible Workflows in Distributed Systems  
Kiel, Germany  
8 Mar 2011 to 11 Mar 2011

## SIMUTools 2011

4th International Conference on Simulation Tools and Techniques  
Barcelona, Spain  
21 Mar 2011 to 25 Mar 2011

## IMCIC 2011

The 2nd International Multi-Conference on Complexity, Informatics and Cybernetics  
Orlando, Florida USA  
27 Mar 2011 to 30 Mar 2011

## SKIN2011

Simulating Knowledge Dynamics in Innovation Networks: Workshop  
University of Koblenz-Landau, Koblenz, Germany  
31 Mar 2011 to 1 Apr 2011

## ADS11

Agent-Directed Simulation Symposium  
Boston Marriott Long Wharf Hotel; Boston, MA, USA  
4 Apr 2011 to 9 Apr 2011

## ISAmI 2011

2nd International Symposium on Ambient Intelligence - Software and Applications  
Salamanca, Spain  
6 Apr 2011 to 8 Apr 2011

## PAAMS11

9th International Conference on Practical Applications of Agents and Multi-Agent Systems  
Salamanca, Spain  
6 Apr 2011 to 8 Apr 2011

## IEEE ALIFE 2011

The 2011 IEEE Symposium on Artificial Life  
Paris, France  
11 Apr 2011 to 11 Apr 2011

## NetSciCom2011

3rd International Workshop on Network Science for Communication Networks  
Shanghai, China  
15 Apr 2011 to 15 Apr 2011

## WSS 2011

The 4th International Symposium on Web Services  
Hammamet, Tunisia  
20 Apr 2011 to 21 Apr 2011

## AAMAS 2011

The Tenth International Conference on Autonomous Agents and Multiagent Systems  
Taipei, Taiwan  
2 May 2011 to 5 May 2011

## ATES2011

2nd International Workshop on Agent Technologies for Energy Systems  
Taipei, Taiwan  
2 May 2011 to 2 May 2011

## FET11

The European Future Technologies Conference and Exhibition 2011  
Budapest, Hungary  
4 May 2011 to 6 May 2011

## NIDISC2011

14th International Workshop on Nature Inspired Distributed Computing  
Anchorage (Alaska) USA  
16 May 2011 to 20 May 2011

## ECMS2011

25th EUROPEAN Conference on Modelling and Simulation  
Krakow, Poland  
7 Jun 2011 to 10 Jun 2011

## ISIE2011

6th International Conference on Industrial Ecology  
Berkeley, California, USA  
7 Jun 2011 to 10 Jun 2011

## CCSS2011

International Workshop on Coping with Crises in Complex Socio-Economic Systems - 2011  
ETH Zurich, Switzerland  
20 Jun 2011 to 25 Jun 2011

## ESHIA-WEHIA2011

The 16th Annual Workshop on Economic Heterogeneous Interacting Agents  
Ancona, Italy  
23 Jun 2011 to 25 Jun 2011

## CLIMA XII

12th International Workshop on Computational Logic in Multi-Agent Systems  
Barcelona, Spain  
17 Jul 2011 to 18 Jul 2011

## Game Theory and Society 2011

Game Theory and Society - Models of Social Interaction in Sociological Research  
ETH Zurich, Switzerland  
27 Jul 2011 to 30 Jul 2011

## ECAL11

European Conference on Artificial Life - 20th Anniversary Edition - Back to the Origins of Alife  
Paris, France  
8 Aug 2011 to 12 Aug 2011

## WIIAT2011

The 2011 IEEE / WIC / ACM International Conferences on Web Intelligence and Intelligent Agent Technology  
Campus Scientifique de la Doua, Lyon, France  
22 Aug 2011 to 27 Aug 2011

## SPSD2011

International Community on Spatial Planning and Sustainable Development  
Kanazawa, Japan  
29 Aug 2011 to 31 Aug 2011

## ECCS11

European Conference on Complex Systems 2011  
Vienna, Austria  
12 Sep 2011 to 16 Sep 2011

## ANT2011

2nd International Conference on Ambient Systems, Networks and Technologies  
Ontario, Canada  
19 Sep 2011 to 21 Sep 2011

## Jobs

<http://jobs.cssociety.org>

### Postdoc/Lecturer

Statistical methods for the brain functional connectivity networks: robustness, fusion with anatomical connectivity. Grenoble Institute of Neuroscience (<http://neurosciences.ujf-grenoble.fr/>) and the department of Images and Signal within the GIPSA-lab laboratory, France (<http://www.gipsa-lab.inpg.fr/>) - Sat 01 of Jan., 2011

### Postdoc/Lecturer

Studentship & Post-Doctoral Fellowship in Quantitative Biology  
Laboratoire de Spectrométrie Physique in Grenoble France – Sun 02 of Jan., 2011

### Lecturer

Multi-Agent Systems - Department of Computer Science  
[http://www.liv.ac.uk/working/job\\_vacancies/](http://www.liv.ac.uk/working/job_vacancies/)  
University of Liverpool  
UK - 4 Jan 2011

### Postdoc/Lecturer

Post Doc in complex systems research  
Center Leo Apostel for Interdisciplinary Studies  
Belgium - Tue 11 of Jan, 2011

### Postdoc

Sociology - Egocentric networks and life chances  
Questions to Professor Jens Rydgren, at [jens.rydgren@sociology.su.se](mailto:jens.rydgren@sociology.su.se)  
Stocholm University  
Sweedden - 31 Jan 2011

## Contacts

### ASSYST - Action for the Science of complex Systems and Socially intelligent ICT

Web: <http://assystcomplexity.eu>  
RSS: <http://assystcomplexity.eu/rss.xml>  
Twitter: <http://twitter.com/assystcomplex>  
FriendFeed: <http://friendfeed.com/assystcomplex>  
Email: [newsletter@assystcomplexity.eu](mailto:newsletter@assystcomplexity.eu)

Feedback: <http://assystcomplexity.ideascale.com/>

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### CSS – Complex Systems Society

Web: <http://cssociety.org>  
RSS: [http://cssociety.org/tiki-calendars\\_rss.php](http://cssociety.org/tiki-calendars_rss.php)  
Suggestions: <http://cssociety.org/suggestions>

### Contributors to this edition:

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### Story submission guidelines:

If you are a Complex System researcher/practitioner and want to share a story about your research please submit it to [newsletter@assystcomplexity.eu](mailto:newsletter@assystcomplexity.eu).

The text should have approximately 500 words (if you want to submit an extended text please contact us) and should be sent in TXT, ODT, RTF or DOC file formats.

