# NETSCI 09 International Workshop and Conference on Complex Networks and their Applications

ISTITUTO VENETO SCIENZE LETTERE ED ARTI June 29 July 3 2009

## *WORKSHOP PROGRAMME*

| | MONDAY JUNE 29th | TUESDAY JUNE 30th |
|---|---|---|
| 08.30 - 09.00 | **Registration / Welcome** | |
| 09.00 - 10.00 | An Introduction to Complex Networks<br>Alain BARRAT | *Biological Networks*<br>Anne-Claude GAVIN |
| 10.00 - 11.00 | | |
| 11.00 - 11.20 | COFFEE BREAK | COFFEE BREAK |
| 11.20 - 12.20 | An Introduction to Complex Networks<br>Alain BARRAT | *Biological Networks*<br>ANNE-Claude GAVIN |
| 12.20 - 12.50 | | |
| 12.50 - 14.20 | LUNCH | LUNCH |
| 14.20 - 15.20 | Economic models of Networks<br>Matthew O. JACKSON | Social Networks and Human Nature<br>James FOWLER |
| 15.20 - 16.20 | | |
| 16.20 - 16.40 | COFFEE BREAK | COFEEE BREAK |
| 16.40 - 17.40 | Economic models of Networks<br>Matthew O. JACKSON | Social Networks and Human Nature<br>James FOWLER |
| 17.40 - 18.10 | | |
| Evening | **VISIT TO** ST. MARK'S BASILICA<br>**(English Guides)** | |

# NETSCI 09 International Workshop and Conference on Complex Networks and their Applications

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## *CONFERENCE PROGRAMME*

| | WEDNESDAY JULY 1st | THURSDAY JULY 2nd | FRIDAY JULY 3rd |
|---|---|---|---|
| 08.30 - 09.00 | **Registration & Opening** | CHAIR: A Vespignani<br>Switching Phenomena And Statistical Networks: A Case Study From The Stock Market<br>H. Eugene STANLEY | CHAIR: HE Stanley<br>Multiscale networks and forecasting techno-social systems: Planning for pandemic outbreaks in real time<br>Alessandro VESPIGNANI |
| | CHAIR: V. Colizza | | |
| 09.00 - 09.30 | Percolation on correlated networks<br>José F. MENDES | *Tba*<br>Joshua LO SPINOSO | |
| 09.30 - 10.00 | The entropy of network ensembles<br>Ginestra BIANCONI | *Interaction networks in genetic and ecology*<br>Amos MARITAN | *Tracking dollars and disease: On the brink of real-time epidemic forecasts*<br>Dirk BROCKMANN |
| 10.00 - 10.20 | COFFEE BREAK | COFFEE BREAK | COFFEE BREAK |
| 10.20 - 12.00 | *PARALLEL SESSIONS **1*** | *PARALLEL SESSIONS **3*** | *PARALLEL SESSIONS **5*** |
| 12.00 - 13.30 | LUNCH | LUNCH | LUNCH |
| | CHAIR: J Fowler | CHAIR: G Caldarelli | CHAIR: S Havlin |
| 13.30 - 14.00 | Explosive percolation & mixed phase transitions<br>Raissa D'SOUZA | Economic Networks: Micro and Macro Perspectives<br>Frank SCHWEITZER | *Cooperation and Conflict in the Prisoner's Dilemma and the Emergence of Norms*<br>Dirk HELBING |
| 14.00 - 14.30 | Novel Percolation Models in Complex Networks<br>Shlomo HAVLIN | Modeling large social networks<br>Janos KERTESZ | The query-flow graph<br>Debora DONATO |

| | | | |
|---|---|---|---|
| 14.30 - 15.00 | *Tba*<br>**Bruce WEST** | *Agents in a global Networks*<br>Luciano PIETRONERO | Patterns in human-related systems<br>Kwang-Il GOH |
| 15.00 - 15.20 | COFFEE BREAK | COFFEE BREAK | COFFEE BREAK |
| 15.20 - 17.05 | *PARALLEL SESSIONS **2*** | *PARALLEL SESSIONS **4*** | *PARALLEL SESSIONS **6*** |
| 17.10 - 17.40 | *POSTER SESSION* | *POSTER SESSION* | *Tbc*<br>A.-László BARABÁSI |
| 17.40 - 18.10 | *POSTER SESSION* | *POSTER SESSION* | |
| EVENING | **(20.00) SOCIAL DINNER**<br>**[dress code: formal]** | **(19.00)** CONNECTED (MOVIE) | |

## WEDNESDAY 1 July morning (Sessions 1-X)

| Location | Sala del Portego | Giardino | Mezzanino | Caminetto |
|---|---|---|---|---|
| Chairman | | A Chessa | A-C Gavin | A Barrat |
| Topic | SESSION 1-A<br>Theory and Environment | SESSION 1-B<br>Organization | SESSION 1-C<br>Biology | SESSION 1-D<br>Communication on networks |
| 10.20-10.35 | Yong-Yeol Ahn, James Bagrow and Sune Lehmann. Hierarchical Link Clustering in Complex Networks | Andrea Mario Lavezzi and Nicola Meccheri. Transitions Out of Unemployment: the Role of Social Networks' Topology and Firms' Recruitment Strategies | Mario Chavez, Miguel Valencia, Vito Latora and Jacques Martinerie. Functional modularity of spontaneous activities in normal and epileptic brain network | Rafael Brune, Christian Thiemann and Dirk Brockmann. Universality and the Lack of it in Multiscale Human Mobility Networks |
| 10.35-10.50 | Joel Tenenbaum, H. Eugene Stanley and Shlomo Havlin. Correlation Networks of Earthquakes | Carlos Lever. A model of political campaigns, advertising and lobbying over networks | Marcus Kaiser, Claus Hilgetag and Arjen van Ooyen. No guidance needed: development of realistic spatial neural networks through competition and random growth | Juan Pablo Cárdenas, Mary Luz Mouronte, Luis Moyano, Maria Luisa Vargas and Rosa M. Benito. Complexity and Robustness in the Spanish Optical Telecommunication Network |
| 10.50-11.05 | Antonio Santiago, Juan Pablo Cárdenas, Ana María Tarquis, Juan Carlos Losada, Florentino Borondo and Rosa M. Benito. Heterogeneous complex network formalism. Application to porous structure of soils | Hyung Jun Park. Self-Organizition, Collaborative Regional Governance and Network | Jennifer Simonotto, Stephen Eglen, Marcus Kaiser, Christopher Adams and Evelyne Sernagor. Analysis of spontaneous activity patterns in developing retina: extracting and analyzing dynamical networks | David Hachen and Omar Lizardo. Correlates of Reciprocity in a Large-Scale Communication Network: A Weighted Edge Approach |
| 11.05-11.20 | John Volpe. Sustainability and the myth of efficiency | Muhittin Mungan and Jose J. Ramasco. Who is keeping you in that community? | Petra E Vertes and Tom Duke. The Effect of Network Topology on Pattern Recognition in Neural Networks | R. Carvalho, L. Buzna, F. Bono, E. Gutierrez, W. Just, D. Arrowsmith. Robustness of Trans-European Gas Networks: The Hot Backbone |
| 11.20-11.35 | Sergey Dorogovtsev, Jose Mendes, Alexander Samukhin and Alexander Zyuzin. Organization and function of modular networks | Pietro Panzarasa and Bernard Kujawski. Cognitive similarity and patterns of communication: Network and content analysis of an online forum | Christian Darabos, Ferdinando Di Cunto, Marco Tomassini, Paolo Provero and Mario Giacobini. Generalized Boolean Networks with Topology Driven Dynamics | Cecile Cartozo and Paolo De Los Rios. Extended navigability of small world networks: exact results and new insights |
| 11.35-11.50 | Alan Taylor, Desmond Higham, Ernesto Estrada and Jonathan Crofts. Mapping Directed Networks | Carlo Gianelle and Giancarlo Ruffo. Discovering the network topology of labor mobility: structural determinants and directions for policy | | Ying Fan and Zengru Di. Insight to the Express Transport Network |

**WEDNESDAY 1 July afternoon (Sessions 2-X)**

| Location | Sala del Portego | Giardino | Mezzanino | S. Vidal |
|---|---|---|---|---|
| Chairman | R Pastor-Satorras | G Bianconi | A Maritan | S.Uhlig |
| Topic | *Indiana University* SESSION 2-A *On Epidemics* | SESSION 2-B Theory | SESSION 2-C Biology | SESSION 2-D Co-organized with SIMPLEX |
| 15.20-15.35 | Luis Enrique Correa da Rocha and Petter Holme. Assessing sexual networks of prostitution from a web community | Gergely Palla, Tamas Vicsek and Laszlo Lovasz. A General Graph Generator | Pedro Rafael Costa, Marcio Luis Acencio and Ney Lemke. Network topology-based prediction of morbid and druggable genes | Hao Hu, Steven Myers, Vittoria Colizza and Alessandro Vespignani. WiFi Networks and Malware Epidemiology |
| 15.35-15.50 | Stefan Wieland, Tomás Aquino and Ana Nunes. The Effect of SIS Dynamics with Contact Switching on Contact Network Topology | Mark Dickison, Roni Parshani, Gene Stanley, Reuven Cohen and Shlomo Havlin. Dynamic networks and directed percolation | A. V. Goltsev, F. V. de Abreu, S. N. Dorogovtsev and J. F. F. Mendes. Stochastic model of neural networks | Pu Wang, Marta González, César Hidalgo and Albert-László Barabási. Understanding the spreading patterns of mobile phone viruses |
| 15.50-16.05 | F. Natale, L. Savini, Diana Palma, P. Calistri, Armando Giovannini, L. Possenti, D. Zippo G. Fiore. Network based tools for tracing livestock movements for disease outbreaks | Massimo Ostilli and Jose' Fernando Mendes. Communication and correlation among communities | Sung-Guk Han, Su-Chan Park and Beom Jun Kim. Reentrant phase transition in a predator-prey model | Steve Uhlig and Almerima Jamakovic. On the trade-off between efficiency and robustness in communication networks |
| 16.05-16.20 | Matthew Vernon and Matt Keeling. Individual and network models of infectious diseases of cattle | I. McCulloh and J. Siskey. Network Topology Effects on Correlation between Centrality Measures | Phillip P. A. Staniczenko, Nick S. Jones and Felix Reed-Tsochas. Local trophic adaptation requires a new approach to ecological robustness and keystone species identification | Pan Hui, Nishanth Sastry, Steve Uhlig and Jon Crowcroft. LENS: LEveraging Network Science to Identify Malicious Users in Communication Networks |
| 16.20-16.35 | D. Bisanzio, L. Bertolotti, A. Mannelli, C. Ragagli, G. Amore, L. Tomassone, P. Provero and M. Giacobini. On the modelling of epidemic spreading in vector-host systems | Andrea Lancichinetti and Santo Fortunato. Benchmark graphs for community detection algorithms | V. Belcastro, L. Cutillo, F. Gregoretti, G. Oliva and D. di Bernardo. Untangling biological complexity: inference and analysis of a global network of gene-gene regulation in human cells | Alain Barrat, Ciro Cattuto, Vittoria Colizza, Jean-Francois Pinton, Wouter Van den Broeck and Alessandro Vespignani. High resolution dynamical mapping of social interactions with active RFID |
| 16.35-16.50 | Jose Marcelino and Marcus Kaiser. Controlling spreading: Improved strategies for airline, social, and neural networks by edge removal. | Renaud Lambiotte, Jean-Charles Delvenne and Mauricio Barahona. Laplacian Dynamics and Multiscale Modular Structure in Networks | Gareth Baxter and Marcus Frean. Mutation and Selection on Graphs | Christian Thiemann, Daniel Grady and Dirk Brockmann. Tour de Sys: The Traveler's View of a Network |
| 16.50-17.05 | Tiziano Squartini and Diego Garlaschelli. Exact method for randomizing real networks | Nicola Perra, Vinko Zlatic, Alessandro Chessa, Claudio Conti, Debora Donato and Guido Caldarelli. Localization of the PageRank in the WWW as disordered potential problem | | Andrea Apolloni, Karthik Channakeshava, Lisa Durbeck, Maleq Khan, Chris Kuhlman, Bryan Lewis and Samarth Swarup. Diffusion of Information Through Private Communication in Realistic Social Networks |

# THURSDAY 2 July morning (Sessions 3-X)

| Location | Sala del Portego | Giardino | Mezzanino | S. Vidal |
|---|---|---|---|---|
| Chairman | | | D Donato | J Kertesz |
| Topic | SESSION 3-A<br>Theory | SESSION 3-B<br>Economics | SESSION 3-C<br>Social | SESSION 3-D<br>Social |
| 10.20-10.35 | Alexander Samukhin, Sergey Dorogovtsev and Jose-Fernando Mendes. Spectral properties of uncorrelated random networks | Gal Oestreicher-Singer and Arun Sundararajan. The Visible Hand of Social Networks in Electronic Markets | James Bagrow. Non-traditional network visualization methods | Alexander Mehler. A Quantitative Graph Model of Social Ontologies |
| 10.35-10.50 | Karsten Steinhaeuser, Nitesh Chawla and Auroop Ganguly. Discovery of Climate Patterns with Complex Networks | Katherine Krumme. Social and Economic Dynamics in an Online Peer-to-Peer Lending Network | Stefan Hennemann. Measuring regional scientific knowledge flows – Contributions of spatial sub-units to the networking performance of metropolitan regions | Elka Korutcheva and Kostadin Koroutchev. Statistical Mechanics of Texts: Message Passing Approach |
| 10.50-11.05 | Sune Lehmann, Yong-Yeol Ahn and James P Bagrow. Link clustering using Partition Density | Cesar A. Hidalgo and Ricardo Hausmann. Economic Complexity and Economic Development | Gergely Palla, Illes Farkas, Peter Pollner, Imre Derenyi and Tamas Vicsek. Statistical features and self-similar properties of tagged networks | Y. Hayashi. Robust & efficient design of geographical networks according to a population density |
| 11.05-11.20 | Alexander Mehler, Matthias Dehmer and FRank Emmert-Streib. On Network Entropies : A Comparative Study | Sinan Aral, Lev Muchnik and Arun Sundararajan. Influence Dynamics in Large Complex Networks | Vinko Zlatic. Hypergraph topological quantities for tagged systems | Mason Porter. Community Structure in Online Collegiate Social Networks |
| 11.20-11.35 | Matti Peltomäki, Juha-Matti Koljonen, Mikko Alava and Olav Tirkkonen. Self-organized graph coloring. | Stefania Vitali, James Glattfelder and Stefano Battiston. The Network of Global Corporate Control | Gautier Krings and Francesco Calabrese. Micro- and macro-networks: how do groups of nodes interact? | Alejandro Morales Gallardo and Dirk Brockmann. Network-network duality - The impact of social network structures on metapopulation models for disease dynamics |
| 11.35-11.50 | Ian McCulloh, Joshua Lospinoso and Natalia Mendoza. Actor-Oriented Specification to Validate Simulation of Complex Networks | Stefano Battiston, Domenico Delli Gatti, Mauro Gallegati, Joseph Stiglitz and Bruce Greenwald. Liaisons Dangereuses: Increasing Connectivity, Risk Sharing, and Systemic Risk. | Haibo Hu and Xiaofan Wang. How people make friends in online social networking sites?–A microscopic perspective | Masashi Iwakami and Takayuki Ito. Analyzing Network Structure of Borrowers and Lenders in Social Lending |

## THURSDAY 2 July afternoon (Sessions 4-X)

| Location | Sala del Portego | Giardino | Mezzanino | S. Vidal |
|---|---|---|---|---|
| Chairman | J F Mendes | R D'Souza | D Brockmann | L Pietronero |
| Topic | SESSION 4-A<br>Theory | SESSION 4-B<br>Percolation on Nets | *Indiana University*<br>SESSION 4-C<br>*On Epidemics* | SESSION 4-D<br>Society |
| 15.20-15.35 | M. Ángeles Serrano. Rich-club vs rich-multipolarization phenomena in weighted networks | Eduardo Lopez. Limited path percolation pahse transition: How violently does a system get disconnected? | Hugues Bersini. Immunologists : The true pioneers of the « new » science of complex networks | S. Arbesman and N. Christakis. Leadership Insularity: connectivity and insularity between central nodes in networks |
| 15.35-15.50 | J.J. Ramasco, T. Opsahl, P. Panzarasa and V. Colizza. Prominence and control: The weighted rich-club effect | Elizabeth Leicht and Raissa D'Souza. Percolation on interacting networks | Eiko Yoneki and Jon Crowcroft. GIS: Geographical Information Cascade in Online Social Networks | Olga Pustylnikov and Kirill Medvedev. Information Flow in Morphological Derivation Networks |
| 15.50-16.05 | Karen Shoop and Raul Mondragon. One size fits all? Evaluating null models for academic networks | Soon-Hyung Yook and Yup Kim. Percolation transition of the synchronized cluster on complex networks | G. Zschaler, A. Mora T. Gross. Dynamics of a SIRS epidemic model on an adaptive network | Takashi Iba and Satoshi Itoh. Sequential Collaboration Network of Open Collaboration |
| 16.05-16.20 | V. Zlatić, G. Caldarelli Randomization Procedure and Rich Club coefficient | Jun Wu, Yuejin Tan and Hongzhong Deng. Model for Invulnerability of Complex Networks with Incomplete Information based on Unequal Probability Sampling | B. Goncalves, M. Ajelli, D. Balcan, V. Colizza, H. Hu, Jose J. Ramasco, S. Merler and A. Vespignani. Comparing large-scale computational approaches to epidemic modeling: Agent based versus structured metapopulation models. | Maximilian Schich. Evaluating Cultural Heritage Databases Using Degree Matrices |
| 16.20-16.35 | Ernesto Estrada and Naomichi Hatano. From Networks to Hypernetworks | Jun Wu, Yuejin Tan and Mauricio Barahona. Robustness of Regular Graphs Based on Natural Connectivity | D. Balcan, V. Colizza, B. Goncalves, H. Hu, J. Ramasco and A. Vespignani. Multiscale mobility networks and the large scale spreading of infectious diseases | F. Lombardo, Isabella Daidone Museum Network as a Complex Web |
| 16.35-16.50 | D. Garlaschelli, T. Squartini and M. Loffredo. Generalized Bose-Fermi statistics & structural correlations in weighted nets | Sergey Melnik and James Gleeson. Analytical results for bond percolation on clustered random networks | K. Robinson, T. Cohen and C. Colijn. Infection Subgraphs of Dynamic Sexual Contact Networks | |
| 16.50-17.05 | Pietro De Lellis, Mario di Bernardo and Francesco Garofalo. Consensus and Synchronization of Complex Networks: theory and applications | Jun Wu, Yuejin Tan and Mauricio Barahona. Robustness of Random Graphs Based on Natural Connectivity | S. Merler and M. Ajelli. Factors affecting the spread of an epidemic in Europe: population heterogeneity and human mobility | |

## FRIDAY 3 July morning (Sessions 5-X)

| Location | Sala del Portego | Giardino | Mezzanino | S. Vidal |
|---|---|---|---|---|
| Chairman | K-I Goh | | F Schweitzer | V Colizza |
| Topic | SESSION 5-A<br>Biology & Health | SESSION 5-B<br>Organization | SESSION 5-C<br>Economics & Society | SESSION 5-D<br>Mobility & Infrastructures |
| 10.20-10.35 | Guillaume Chelius, Antoine Fraboulet, Eric Fleury and Jean-Christophe Lucet. A wireless sensor network to measure the health care workers exposure to tuberculosis | Francesca Odella. Dimensions of Confidentiality in Group Communication: a Network Perspective | Vasco M. Carvalho. Structure and Change in U.S. Commodity Networks | Adolfo Paolo Masucci, Duncan Smith, Andrew Crooks and Michael Batty. Random planar graphs and the London street network |
| 10.35-10.50 | Natali Gulbahce and Albert-Laszlo Barabasi. Viral Disease Networks | Cristina Martelli and Stefania Rodella. Networking administrative data(bases): a common good for public memory, a public policy for transparency and democracy | Fabrizio Lillo, Rosario N. Mantegna, Jyrki Piilo and Michele Tumminello. Network of investors acting in a financial market | Rae Zimmerman. Applying Network Theory to Urban Infrastructure |
| 10.50-11.05 | Francesco Iorio, Roberta Bosotti, Antonella Isacchi, Emanuela Scacheri and Diego di Bernardo. DRUG NETWORKS: A network approach to study drugs and their mode of action | Ken Suzuki. Proposing a New Currency System Using Network of Transactions | Floriana Gargiulo. The diffusion of innovative ideas in dynamical scenarios | Daniele De Martino. Congestion phenomena on complex networks |
| 11.05-11.20 | César Hidalgo, Nicholas Blumm, Albert-László Barabási and Nicholas Christakis. The Phenotypic Disease Network | Jason Boorn, Debra Goldberg. I'm Like You, Just Not in That Way: Trust Networks to Improve Collaborative Filtering | Eocman Lee, Jeho Lee, Jiwhan Lee and Dan Braha. Emergent Properties of Learning Dynamics on Hierarchical Networks | Giovanni Petri, Henrik J. Jensen and John W. Polak. Congestion and information in traffic networks: dynamical percolation? |
| 11.20-11.35 | Sebastian Ahnert, Thomas Fink, Andrei Zinovyev. Growth model for regulatory networks predicts lower bound on non-coding DNA in eukaryotes | Michela Ferron, Paolo Massa and Francesca Odella. Supporting Collaborative Networks in Organizational Settings using an Enterprise 2.0 platform | Gerd Zschaler and Thilo Gross. "Rich stays rich" and full cooperation in the snowdrift game on an adaptive network | Gautier Krings, Francesco Calabrese, Carlo Ratti and Vincent Blondel. Gravity model in inter-city communication network |
| 11.35-11.50 | Andrzej Nowak, Wieslaw Bartkowski and Robin Vallacher. Dynamics of evaluation in the construction of shared reality | Di Zengru and Ying Fan. Scaling Properties in Spatial Networks and its Effects on Topology and Traffic Dynamics | K. Rakocy, J. Zajac and A. Nowak. Modelling epidemic diffusion considering change in behaviour. The case study of Poland | Di Zengru and Ying Fan. Scaling Properties in Spatial Networks and its Effects on Topology and Traffic Dynamics |

## FRIDAY 3 July afternoon (Sessions 6-X)

| Location | Sala del Portego | Giardino | Mezzanino | S. Vidal |
|---|---|---|---|---|
| Chairman | D Garlaschelli | M. Santarelli | A Chessa | JJ Ramasco |
| Topic | SESSION 6-A<br>Dynamics | SESSION 6-B<br>COMPANIES MEET ACADEMIA | SESSION 6-C<br>Theory | SESSION 6-D<br>Mobility & Infrastructures |
| 15.20-15.35 | Jean-Jacques Slotine. STRUCTURAL PRINCIPLES FOR DYNAMICAL NETWORKS | Di MICHELE (ENEL) TBA | Byungjoon Min, Kwang-Il Goh and In-Mook Kim. Waiting time dynamics of priority-queue networks | Andrea Baronchelli, Michele Catanzaro and Romualdo Pastor-Satorras. Random Walks On Complex Trees |
| 15.35-15.50 | C.-K. Yun, N. Masuda, C. Choi and Byungnam Kahng. Aggregation and condensation of dynamic clusters on complex networks | | Romualdo Pastor-Satorras, Isabel Corominas and M. Carmen Miguel. Percolation analysis of force networks in anisotropic granular matter | Andrea Gabrielli and Guido Caldarelli. Invasion percolation on a tree and queueing models |
| 15.50-16.05 | Thomas Gorochowski. Dynamics of evolving complex networks | Simone FEDELI (Mx Group) | Ingo Scholtes Breathing Life into Networks: Harnessing Complexity in Massive-Scale Networked Computing | Vincent David and Dirk Brockmann. Spatial scale in human mobility networks - What can we learn from renormalization? |
| 16.05-16.20 | Daqing Li and Shlomo Havlin. Overlapping Synchronization | | Thomas Fink Exact solution of the critical Kauffman model with connectivity one | Dashun Wang, Cesar Hidalgo, James Bagrow and Albert-Laszlo Barabasi. Social Mobility, of the Network Kind |
| 16.20-16.35 | Romualdo Pastor-Satorras and Andrea Baronchelli. Effects of mobility on ordering dynamics | | Marian Boguna. From lattices to small-worlds and back again or how we got rid of the Euclidean geometry to fall into the hyperbolic plane | ROUND TABLE |
| 16.35-16.50 | Fabio Caccioli and Luca Dall'Asta. Non-equilibrium mean-field theories on scale-free networks | | Anthony Johnson and Marc Anthony Johnson. Longitudinal Analysis of a Chess Match | ROUND TABLE |
| 16.50-17.05 | Matteo Cavaliere, Attila Csikász-Nagy, Tarcisio Fedrizzi and Ferenc Jordán. Games generating networks | | Bin Liu, Ton Coolen, Xiaoyue Wu and Hongzhong Deng. Robustness of semi-directed networks | ROUND TABLE |

## POSTERS

**Networks in Biology**

1) Sumeet Agarwal, Nick Jones, Charlotte Deane and Mason Porter. Node and link roles in protein interaction networks
2) Mônica G. Campiteli, Frederico Soriani and Gustavo H. Goldman. The role of the gene ATM (Ataxia Telangiectasia Mutated) in the co-expression network of the model organism Aspergillus nidulans.
3) Wojciech Borkowski. How Food Networks Emerge From A Multispecies Predator-Prey Microsimulation?
4) Vera Pancaldi and Jürg Bähler. Prediction of fission yeast protein-protein interactions based on gene and protein information
5) Detlef Holstein, F. V. de Abreu, S. N. Dorogovtsev, J. F. F. Mendes and A. V. Goltsev. Simulations of stochastic dynamics of a neural network model
**6)** Xin Lu, L. Bengtsson, Tom Britton, M. Camitz, Beom Jun Kim, Anna Thorson and Fredrik Liljeros. Evaluating efficiency of Respondent-driven sampling on a gay men web community

**Networks in Health, Society, and Environment**

1) Stefan Wieland. Equilibrium topologies of adaptive contact networks with SIS dynamics
2) Mariko Hanabusa and Takashi Iba. Analysis on Collaboration Data of Voice Actors in Anime
3) Jin S. Kim, Byungnam Kahng and Doochul Kim. Power laws and network representation of the seismic records in Sichuan
4) Danica Vukadinovic Greetham, Abhijit Sengupta and Juliette Richetin. Simulating Social Networks Influences on Physical Activity Behaviour
5) Satoshi Itoh, Takaichi Ito, Kenji Kumasaka and Takashi Iba. Analyzing Collaboration Network of Editors in Japanese Wikipedia
6) Nicola Perra, Giancarlo Cappellini, Alessandro Chessa, Luigi Minerba and Gianni Mula. A Data Mining Approach to Health Organization Problems
7) Joao Oliveira and Alexei Vazquez. Impact of interactions on human dynamics
**8)** Hyun Keun Lee, P. Holme, Fredrik Liljeros and B. Jun Kim. An effective master equation for susceptible-infected-susceptible model

**Information Networks and Infrastructures**

1) Dario Ghersi and Maurizio Filippone. An efficiency analysis of the U.S. airport network
2) Graham Williamson, Davide Cellai, Simon Dobson and Paddy Nixon. Data dissemination on human proximity networks
**3)** Dale Hunscher. Utilizing Network Visualization to Assess the Quality of Online Consumer Health Search

**Networks in Organization & Communication**

1) Michela Rancan. Social Networks in the Mutual Fund Industry
2) Ben Collingsworth and Ronaldo Menezes. Temporal Email Network Analysis as an Early Indicator of Organizational Tension
3) Mary Luz Mouronte, Juan Pablo Cárdenas, Antonio Santiago, Victor Feliu and Rosa M. Benito. Modelling Spanish Optical Transport Networks
4) Arnab Chatterjee. Kinetic models for wealth exchange on directed networks

**Network theory: methods, models, visualizations**

1) Brian Karrer and M.E.J. Newman. Random acyclic graphs
2) Yeo-Kwang Yun, Sung-Min Lee, Soon-Hyung Yook and Yup Kim. Effect of degree correlation to the statistical properties of sampled networks
3) Sang-Woo Kim and Jae Dong Noh. Non-equilibrium phase transition in network model
4) Marco Frassoni, Maurizio Napolitano and Davide Setti. Taolin, the open source Enterprise 2.0 web desktop
5) Kathryn Cooper and Mauricio Barahona. Role Similarity Clustering on Directed Networks
6) Adam Hackett, Sergey Melnik and James Gleeson. The role of high degree nodes in global cascades on random networks: an analytical approach
7) H. Guclu and Murat Yuksel. Dynamic Limited Scale-Free Models for Unstructured Peer-to-Peer Networks