BIFI 2018 Conference
"Complexity, Networks & Collective Behaviour" *(morning)*

MORNING SESSION

	FEBRUARY 6	FEBRUARY 7	FEBRUARY 8
8:00 – 8:45	REGISTRATION		
8:45 – 9:00	OFFICIAL INAUGURATION		
CHAIR	Yamir Moreno	Taha Yasseri	Anxo Sánchez
9:00 - 9:45	KEYNOTE SPEAKER **Alessandro Vespignani**	KEYNOTE SPEAKER **Tina Eliassi-Rad**	KEYNOTE SPEAKER **Sanjeev Goyal**
9:45 - 10:00	Antoine Allard, Benjamin M. Althouse, Laurent Hébert-Dufresne and Samuel V. Scarpino. "Double Epidemic Threshold and the Potential of the Zika Virus as a Sustained STI".	Francesco Parino, Mariano Gastón Beiró and Laetitia Gauvin. "Characterization of the Adopters of the Bitcoin".	KEYNOTE SPEAKER **Ciro Cattuto**
10:00 -10:15	Michele Starnini, James Gleeson and Marian Boguñá. "Equivalence between non-Markovian and Markovian dynamics in Epidemic Spreading Processes".	Daniel Monsivais, Kunal Bhattacharya, Asim Ghosh, Robin Dunbar, Kimmo Kaski. "Data-driven discovery of circadian rhythms of urban people - are we like fruit flies?"	
10:15 -10:30	Meesoon Ha, Kihong Chung, Yongjoo Baek, Daniel Kim and Hawoong Jeong. "Role of Structural Heterogeneity in Generalized Epidemic Process".	Julien Randon-Furling and Madalina Olteanu. "Multiscalar sociospatial dynamics in the city".	

10:30 -10:45	Sergio Arregui, Joaquín Sanz, Dessislava Marinova, María José Iglesias, Sofía Samper, Carlos Martín and Yamir Moreno "A data-driven model for the assessment of Tuberculosis transmission in evolving demographic structures".	Alexandre Nicolas, Sebastián Bouzat and Marcelo Kuperman. "Statistical features of the passage of a pedestrian crowd through a bottleneck"	Ignacio Tamarit, José Antonio Cuesta, Robin Dunbar and Anxo Sanchez. "Cognitive resource allocation determines the structure of personal networks".
10:45 -11:00	Xavier R. Hoffmann and Marian Boguñá. "Synergistic Cumulative Contagion in Epidemic Spreading".	Alessandro Caiani, Ermanno Catullo and Mauro Gallegati. "The Effects of Alternative Wage Rimes in a Monetary Union: a Multi-Country Agent Based-Stock Flow Consistent Model".	Jelena Grujic and Tom Lenaerts. "Strategies in the repeated prisoner's dilemma when the cooperation is established".
11:00 -11:30	**COFFEE BREAK**		
CHAIR	**Alessandro Vespignani**	**Javier Borge-Holthoeffer**	**Jelena Grujic**
11:30 -11:45	Laura Ozella, Jared Wilson-Aggarwal, Michele Tizzoni, Ciro Cattuto and Robbie McDonald. "Animal social networks relevant to disease transmission among free-roaming dogs in Chad".	Taha Yasseri "Understanding the Patterns of Success in Online Petitioning"	Sibilla Di Guida, The Anh Han, Georg Kirchsteiger, Tom Lenaerts and Ioannis Zisis. "Endogenous Repeated Cooperation and Surplus Distribution - An Experimental Analysis".
11:45 -12:00	Antoine Moinet, Alain Barrat and Romualdo Pastor Satorras. "Effect of Risk Perception on Epidemic Spreading in Temporal Networks".	Kunal Bhattacharya, Venla Berg, Daniel Monsivais, Asim Ghosh, Janos Kertesz, Anna Rotkirch, Kimmo Kaski. "From network of families to network of kins: aspects of migration, fertility and cultural homophily".	Zhen Wang, Marko Jusup, Rui-Wu Wang, Lei Shi, Yoh Iwasa, Yamir Moreno and Jürgen Kurths. "Onymity promotes cooperation in social dilemma experiments".

morning...

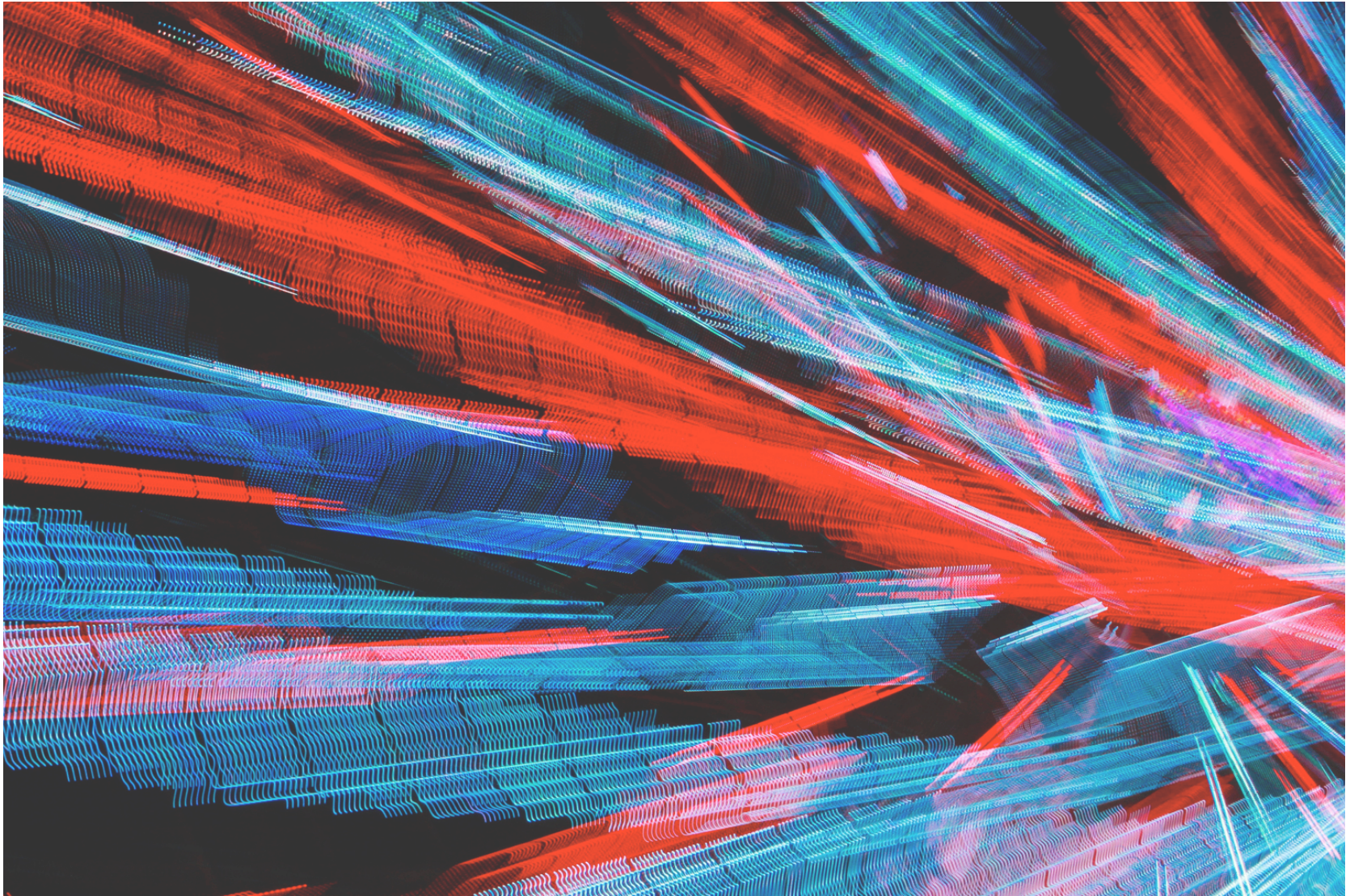| Time		Keynote	
12:00 -12:15	Eugenio Valdano, Susanna Manrubia, Sergio Gómez and Alex Arenas. "The spread of multipartite viruses".	KEYNOTE SPEAKER **Arne Traulsen** ————	Riccardo Gallotti and Jelena Grujic. "Modelling decision times in game theory experiments".
12:15 -12:30	Andrea Santoro, Vito Latora, Giuseppe Nicosia and Vincenzo Nicosia. "Pareto optimality in multilayer network growth".		Luis A. Martinez Vaquero, Francisco C. Santos and Vito Trianni. "Evolution of signalling and memory for consensus decisions in public good games".
12:30 -12:45	Claudia Payrató Borrás, Laura Hernandez, and Yamir Moreno. ""Heterogeneous degree sequences as the determinants of nestedness in mutualistic ecosystems".		Sergio Cobo-López, Antonia Godoy-Lorite, Jordi Duch, Roger Guimerà and Marta Sales-Pardo. "Optimal prediction of decisions and model selection in social dilemmas using block models with metadata"
12:45 -13:00	Emanuele Cozzo, Conrad Pérez-Vicente and Albert Díaz-Guilera. "Diffusion dynamics on Temporal Multiplex Networks".	**6 FLASH TALKS (5 MINUTES)**	Alberto Antonioni "Cooperation-driven hierarchy is interpreted as good reputation".
13:00 -13:15	Andres M. Belaza, Jan Ryckebusch, Kevin Hoefman, Aaron Bramson, Milan Van den Heuvel and Koen Schoors. "Statistical physics of balance theory".		Daniele Vilone, Giulia Andrighetto and John Realpe Gomez. "Criticality as key-concept to understand Social Norms' dynamics".
13:15 -15:00	**LUNCH**		

AFTERNOON SESSION

	FEBRUARY 6	FEBRUARY 7	FEBRUARY 8
CHAIR	**Tina Eliassi-Rad**	**José A. Cuesta**	**Sandro Meloni**
15:00 -15:45	KEYNOTE SPEAKER **James Gleeson**	KEYNOTE SPEAKER **Susanna Manrubia**	Francesca Lipari and Alberto Antonioni. "Investigating the coevolution of institutions and social norms within game interactions on a multiplex network model" Balazs Vedres "Weighted openness coefficient as a measure of creative potential". Philipp Lorenz and Philipp Hoevel "Understanding the dynamics of hashtags".
15:45 -16:00	Jean-Gabriel Young, Giovanni Petri, Francesco Vaccarino and Alice Patania. "Construction of and efficient sampling from the simplicial configuration model".	Javier Borge-Holthoefer, Albert Solé-Ribalta, Manuel Sebastian Mariani, Claudio J. Tessone. "Revealing In-Block Nestedness in social and ecological networks"	Gorm Gruner Jensen and Stefan Bornholdt. "Social Evolution of Structural Discrimination".
16:00 -16:15	Enrico Ser-Giacomi "Lagrangian Flow Networks: a new paradigm to characterize geophysical transport".	Agnieszka Czaplicka, Sandro Meloni, and Yamir Moreno. "Projections of bipartite networks and dynamical aftereffects".	Alexis Hernández, Carlos Gracia-Lazaro, Edgardo Brigatti and Yamir Moreno "A networked voting rule for democratic representation ".
16:15 -16:30	Ebrahim Patel "Maxmin-ω: Deterministic Asynchrony on Networks".	Samir Suweis, Anna Tovo, Marco Favretti, Marco Formentin, Igor Volkov, Jayanth Banavar and Amos Maritan "Upscaling Species Richness and Abundances in Tropical Forests".	Chanania Steinbock, Ofer Biham and Eytan Katzav. "Distances in node-duplication networks".
16:30 -16:45	Iacopo Iacopini, Staša Milojević and Vito Latora. "Network Dynamics of Innovation Processes".	Cecilia Andreazzi, Julia Astegiano and Paulo Guimarães Jr. "Mechanisms driving the evolution of species-rich interaction networks".	**CLOSING REMARKS**

16:45 -17:00	Marco Pretti and Alessandro Pelizzola. *"Variational approximations for stochastic dynamics on graphs".*	Edward D. Lee, Bryan Daniels, David C. Krakauer and Jessica C. Flack. *"Collective Memory in Primate Conflict Implied by Temporal Scaling Collapse".*	
17:00 -17:30	**COFFEE BREAK**		
CHAIR		**James Gleeson**	
17:30 -17:45		Ana P. Millán *"Mind, Complexity and Phase Transitions".*	
17:45 -18:00	**POSTER SESSION**	Esther Ibáñez, Alice Patania, Angkoon Phinyiomark and Giovanni Petri. *"Topology and curvature of brain functional networks under psychedelic drugs".*	
18:00 -18:15		Marko Jusup, Boris Podobnik, Zoran Tiganj, Wen-Xu Wang, Javier Buldú and Eugene Stanley. *"Biological conservation law as an emerging functionality in dynamical neuronal networks".*	
18:15 -18:30		Cristina Masoller *"Network Dissimilarity Measure and Application to Brain Network Differentiation".*	
18:30 -18:45		**5 FLASH TALKS (5 MINUTES)**	
18:45 -19:00			
		SOCIAL DINNER*	

- * Social Dinner will be held on **Wednesday, February 7 at 8:45 PM** in the Restaurant: *"La Rinconada de Lorenzo".* The address of the restaurant is: Calle La Salle 3, 50006 Zaragoza, Spain. You can find more info on how to arrive on the Conference Web page, where we provide a link to a map describing its location and how to reach it.

LIST OF FLASH TALKS:

MORNING SESSION (Flash Talks):

1.- María Pereda, Pablo Brañas-Garza, Ismael Rodríguez-Lara and Angel Sánchez,

"The emergence of altruism as a social norm".

2.- Rodrigo Pereira Rocha, Loren Kocillari, Samir Suweis and Amos Maritan,

"Studying the effects of network nodes sensitivity in a model of brain dynamics poised at criticality".

3.- Cristina Sarasa, Isabel Valero, M. Teresa Bes, Adrián Velázquez Campoy, Maria F. Fillat, Maria Luisa Peleato and Emma Sevilla,

"Deciphering a regulatory system beyond the transcriptional regulation performed by the FUR family in Anabaena based in protein-protein interactions".

4.- Juan José Galano-Frutos and Javier Sancho,

"Energetically validated structural model for the unfolded state of proteins ".

5.- Taha Yasseri,

"Social influence in music listenership: A natural experiment on 1.3 million Last.fm users".

6.- Fermín Serrano Sanz, Jesús Clemente Gallardo, Alfredo Ferrer Marco, Mari Carmen Ibáñez Hernández, María Teresa Pelacho López, Gonzalo Ruiz Manzanares, Francisco Sanz García and Alfonso Tarancón Lafita,

"Analysis of citizen science publications at global scale".

AFTERNOON SESSION (Flash Talks):

1.- Zachary Boyd,

"SBM is discrete surface tension".

2.- Florence Bansept, Emma Slack, Roland R. Roes, Raphaël Voituriez and Claude Loverdo,

"Modeling the physical mechanisms underlying immune system/bacteria interactions in the gut".

3.- Madalina Olteanu, Gael Beaunée, Catherine Laredo, Caroline Bidot and Elisabeta Vergu

"Using SOMbrero for clustering and visualizing large cattle-trading networks".

4.- Sudipto Muhuri,

"Bidirectional motion of filaments: the role of motor proteins and passive cross linkers".

5.- Yukio Hayashi and Naoya Uchiyma

"Resilient networks with adaptive capacity".

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POSTERS:

1. Exploiting a cognitive bias promotes cooperation in social dilemma experiments.
2. Cooperative vs. defective pathogens, at evolutionary stationary state.
3. Quantifying phase synchronization in global surface air temperature data.
4. Molecular basis of the interaction of the human Apoptosis inducing factor with its nuclear partners.
5. Combating bacterial multidrug resistance: new drugs against *Helicobacter pylori*.
6. Epidemic detriment driven by recurrent human mobility patterns.
7. Alternated model for the interplay between epidemics and awareness.
8. Coevolution of synchronization and cooperation in costly networked interactions.
9. A simple model of coevolution for macroscopic and microscopic levels.
10. Intertemporal collective behavior in economics: allocations of time use at home.
11. Stability of fixed points of Quasi-Polynomial dynamical systems and evolutionary stable states.
12. Coexistence of multiple public goods in a bacterial colony.
13. Exploring the complex dynamics of business IT alignment through the analysis of a non-linear model.
14. Japan and regional trade agreements; understanding trade networks.
15. Detection algorithm of chaotic failures in a directed coupled map network.
16. Biodegradation of hexachlorocyclohexane isomers by Anabaena PCC 7120.
17. A model of ecological and evolutionary effects of climate change.
18. Mean-field analysis of network connectivity against stochastic node removals.
19. A stochastic differential equation approach to the analysis of the UK 2016 EU referendum polls.
20. The maximum states of distribution in the ensemble of boolean networks.
21. Adaptive landscape mutation in the eigen's quasispecies model.
22. Impact of nervousness propagation on crowd dynamics.

23. Bacterial communities ampliconprofiles modelling by Markov clustering and neural networks. Defining reference annotation signatures.
24. The effect of self-propulsion on collective motion.
25. Collective social behavior in a crowd controlled game.
26. Topical homophily in online social systems.
27. Cross-border banking crises: A multilayer network perspective.
28. Multifractal spectrum indicates criticality in a network of integrate-and-fire neurons.
29. Causal dynamical networks: dialectic complexity.
30. Design, synthesis and testing of a novel fluorescent probe for the staining of amyloid fibrils of ABeta1-42 peptide, alpha-synuclein and amylin and for the detection of amyloid-nature Staphylococcus aureus biofilms.
31. New antimicrobials targeting flavin homeostasis through FAD synthetase inhibition.
32. Development of novel stabilizing compounds of human phenylalanine hydroxylase for PKU patients.
33. MEBS, a software platform to evaluate large (meta)genomic collections according to their metabolic machinery: unraveling the sulfur cycle .
34. Complex network analysis of images of human retina.
35. Fate of populations: carrying capacity changes induced from mutants in a stochastic system.
36. Heterogeneous distributions in academic citations patterns.
37. Analysis of the Free Energy Landscape of a small protein: a Markov State Model approach.

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