

# NET2019

## Thursday 14<sup>th</sup> November

Università Cattolica del Sacro Cuore  
Cripta Aula Magna - Largo A. Gemelli, 1

10.00-10.45 **Registration**

10.45-11.00 **Workshop Opening. Welcome and introduction**

11.00-12.40 **Session 1 - Centrality Measures, Contagion Models, Matrix Functions**

*Chair:* Stefano BENATI

Daniela BUBBOLONI, Simone GHIGGI, Michele GORI

**Flow centralities**

Giacomo BORMETTI, Domenico DI GANGI, Fabrizio LILLO  
**Score-Driven Exponential Random Graphs: A New Class of Time-Varying Parameter Models for Dynamical Networks**

Luca RICCETTI, Valerio Leone SCIABOLAZZA

**Assessing contagion spreading across the network: centrality measures can be enough**

Eglantina KALLUCI, Mentor SHEVROJA, Eva JANI

**Parallel implementation of networks properties revealed from matrix functions**

Silvia ZAOLI, Piero MAZZARISI, Fabrizio LILLO

**Trip Centrality: walking on a temporal multiplex with non-instantaneous link travel time**

14.30-15.30 **Plenary Session**

*Chair:* Alessandra CORNARO

*Invited Speaker:* Ernesto ESTRADA

**Risk-dependent centrality in financial and economic networks**

16.00-17.20 **Session 2 - Real Networks**

*Chair:* Silvana STEFANI

Francesco PIERRI, Carlo PICCARDI, Stefano CERI

**Topology comparison of Twitter diffusion networks reliably reveals disinformation news**

Fabio DERCOLE, Fabio DELLA ROSSA, Anna DI MEGLIO, Carlo PICCARDI

**Direct reciprocity and model-predictive strategy update explain the network reciprocity observed in socio-economic networks**

Giulia ROTUNDO, Roy CERQUETI

**A copula approach to concentration and control in the weighted cross-shareholding complex networks**

Aleksandar DAMJANOVSKI

**Exploring European defense cooperation patterns in the Permanent Structured Cooperation through Social network analysis**

Matteo CINELLI, Giovanna FERRARO, Antonio IOVANELLA  
**Evaluating relevance and redundancy of node metadata on network structure**

## Friday 15<sup>th</sup> November

Università degli Studi Milano - Bicocca  
U7 Building, IV floor - Via Bicocca degli Arcimboldi, 8

9.30-10.30 **Plenary Session**

*Chair:* Rosanna GRASSI

*Invited Speaker:* Thomas LUX

**The Dynamics of the Interbank Market: Stylized Facts and Agent-Based Models**

16.00-17.20 **Session 3 - Financial Networks**

*Chair:* Gian Paolo CLEMENTE

Roy CERQUETI

**Complex networks for ethical financial models**

Susanna LEVANTESI, Giulia ROTUNDO, Anna Maria D'ARCANGELIS

**A complex networks approach to pension funds**

Gabriele TORRI, Rosella GIACOMETTI, Tomáš TICHÝ

**Network tail risk estimation in the European financial system**

Justo PUERTO, Moisés RODRÍGUEZ-MADRENA, Andrea SCOZZARI

**Network location and portfolio selection problems: A unified framework**

Federica BIANCHI, Alessandro LOMI

**A time to give and a time to take: The effect of market uncertainty on exchange sequences**

14.30-16.10 **Agent-based models, Node Metadata, Clustering Data**

*Chair:* Roy CERQUETI

Olena PUGACHOVA

**Agent-Based Simulation of revenue policy**

Matteo CINELLI, Leto PEEL, Antonio IOVANELLA, Jean Charles DELVENNE

**Network Constraints on the Mixing Patterns of Binary Node Metadata**

Stefano BENATI, Diego PONCE, Justo PUERTO,

Antonio M. RODRÍGUEZ-CHIA

**A Branch-and-price approach for clustering data that are graph connected**

Mario EBOLI, Bulent R. OZEL, Andrea TEGLIO, Andrea TOTO

**The effects of connectivity and centralization of financial networks on their exposure to default contagion**

Viviana AMATI, Alessandro LOMI, Tom A. B. SNIJDERS

**Assessing goodness of fit of relational event models**

Justo PUERTO

**Multisource location of hyperplanes to fitting sets of points**

16.40-16.50 **Closing Remarks**

## Workshop

Thursday 14<sup>th</sup> November 2019

Room Cripta Aula Magna, 10.00-17.20

Università Cattolica del Sacro Cuore - Milan

Friday 15<sup>th</sup> November 2019

Room Sala del Consiglio, 9.30-16.50

Università degli Studi di Milano - Bicocca - Milan