



#### Sept.4 Modeling and Mitigating Epidemics 1

- 11:30 Limited efficacy of forward contact tracing in epidemics
- 11:45 Enhancing global preparedness during an ongoing pandemic from partial and noisy data
- 12:00 Analytical modeling of generalized ring vaccination strategies
- 12:15 Quantifying the impact of behavioural relaxation during the initial phase of COVID-19 vaccinations
- 12:30 Strength and weakness of disease-induced herd immunity
- 12:45 Characterizing collaborations and research flows in Vaccine Hesitancy Research

#### Room 5

- de Meijere, Giulia\**
- d'Andrea, Valeria\**
- Scianna, Matteo; Tizzoni, Michele; Gallotti, Riccardo; Artime, Oriol\*; Alvarez Zuzek, Lucila G*
- Li, Yuhan; Gozzi, Nicolò; Perra, Nicola\**
- Hiraoka, Takayuki\*; Ghadiri, Zahra; K. Rizi, Abbas; Kivelä, Mikko; Saramäki, Jari*
- Balsamo, Duilio\*; Offeddu, Vittoria; Aghamohammadi, Zhina; Leone, Laura Pasqua ; Torbica, Aleksandra; Shayegh, Soheil; Andreu-Perez, Javier; Melegaro, \**

**Chair: Huijuan Wang**

#### Sept.4 Modeling and Mitigating Epidemics 2

- 15:30 Endemic infectious states below the epidemic threshold and beyond herd immunity
- 15:45 Modeling pathogen-pathogen competition in a multi-pathogen ensemble: application to the co-circulation of seasonal respiratory viruses.
- 16:00 An analytical approach to estimating outbreak probability for spatially structured epidemics and its application to pandemic preparedness

#### Room 5

- Ramasco, Jose\**
- Sartore, Marika\*; Azaele, Sandro; Maritan, Amos; Poletto, Chiara*
- Wang, Boxuan\*; Valdano, Eugenio*

**Chair: Istvan Kiss**

#### Sept.5 Complexity in Health

- 11:30 Exploring Diabetics' Online Food Shopping Experience with Large Pre-Trained Language Models
- 11:45 Stratification of Cancer Patients Using Visit Trajectory Analysis
- 12:00 The Gravity of Gravity: How Enhanced Newtonian Principles Predict Emergency Department Visits
- 12:15 Unraveling cradle-to-grave disease trajectories from multilayer comorbidity networks
- 12:30 Bridging Complexity and Biomedical Sciences

#### Room 5

- Zhu, Zhen\**
- Lindner, Simon D\*; Zeilinger, Elisabeth; Gaiger, Alexander; Klimek, Peter; Lubowitzki, Simone*
- Bertolotti, Francesco\*; Schettini, Fabrizio; Asperti, Federica; Foglia, Emanuela*
- Dervic, Elma \**
- Espinosa Sosa, Alejandro\**

**Chair: Chiara Poletto**

#### Sept.5 Modeling and Mitigating Epidemics 3

- 15:30 Epidemic spreading in group-structured populations
- 15:45 Local awareness fatigue during COVID-19 inferred by surveys and genetic sequence data
- 16:00 The limits of human mobility traces to predict the spread of COVID-19
- 16:45 Quantifying the impact of border screening and travel restrictions during global infectious disease outbreaks
- 17:00 The socioeconomic determinants of contact patterns: insights from Italy
- 17:15 The effect of Human Mobility on Exposure to Air Pollution

#### Room 5

- Radicchi, Filippo\**
- Odor, Gergely\*; Karsai, Marton*
- Delussu, Federico; Tizzoni, Michele; Gauvin, Laetitia\**
- Bay, Clara\*; Davis, Jessica; Chinazzi, Matteo; Vespignani, Alessandro*
- Tizzani, Michele\*; Gauvin, Laetitia*
- Delussu, Federico\*; Alessandretti, Laura M; Lousseau, David*

**Chair: Eugenio Valdano**

#### Sept.6 Epidemiological Dynamics and Social Behavior

- 11:30 Getting the Flu in El Farol: Exploring Epidemiological Dynamics in a Social Dilemma
- 11:45 Dynamics of vaccine hesitancy analysis using social network and implications on virus propagation
- 12:00 News propagation on Twitter - analysis of a diverse dataset does not show evidence of difference in fake news spread
- 12:15 Mapping emotional landscapes during the COVID-19 pandemic
- 12:30 A family of distance backbones that preserves spreading dynamics and centrality ranks

#### Room 5

- Bertolotti, Francesco\*; Pasquino, Luca; Kadera, Niccolò; Mari, Luca*
- Achitouv, Ixandra\*; Chavalarias, David*
- Vranić, Ana\*; Almeida, Paulo; Reis, José; Sa, Joana G*
- Balsamo, Duilio\*; Lucchini, Lorenzo; Bianchi, Federico; Hovy, Dirk; Melegaro, Alessia; Balbo, Nicoletta*
- Pereira, Miguel B. \*; Costa, Felipe X; Rocha, Luis M*

**Chair: Fabiana Zollo**