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#### http://phd.stat.unipd.it

PhD Course in Statistics Cycle XXXV Opening

October 18, 2019

Padova | Dept. of Statistical Sciences | Room SC 140 The PhD Course in Statistics welcomes the new PhD students, starting their doctoral program in October 2019.

#### PROGRAMME

#### 15:30 | Welcome

Giovanna Boccuzzo Head of the Department of Statistical Sciences, University of Padova

#### Massimiliano Caporin

Coordinator of the PhD Course in Statistics, University of Padova

### **16 | Invited lecture** Ernst Wit

Institute for Computational Science, Università della Svizzera italiana

# **17.00 | 3 Minute Thesis Competition** - cycle XXXII

Host: Margherita Silan, Doctor of Philosophy, XXXI cycle Jury: Mariangela Guidolin, Antonio Canale, Alberto Roverato, Erlis Ruli, Maria LetiziaTanturri

# **18.00 | Cocktail** Room "O. Cucconi"

## Invited lecture | Network Science as a Paradigm for Modern Statistics

Society and industry have started to consider network processes that are larger and more complex than ever before. Large consumer companies hold a trove of data about the linked spending patterns of its consumers. Mobility providers, from airlines to rental car companies, deal daily with optimization of stochastic logistical network problems. Prediction problems such as credit risk in finance, drug targets in biotech and efficiency in health care involve large networks, loosely defining the field of study of Statistical Network Science. The richness of the underlying network processes, the size of the data, the complexity of the network models and the computationally demanding nature of the inference procedures all mean that Statistical Network Science has become a paradigm for modern statistics, spanning from Big Data to high-dimensional inference. In this talk, I will give an overview of the field of Statistical Network Science, showing how it involves social network analysis, causal inference, viral events such as infectious diseases. but also the diversification of animal and plant species.