







Course **INTRODUCTION TO GRAPHICAL MODELS** WITH APPLICATIONS TO QUANTITATIVE **GENETICS AND GENOMICS**

June 3 – 7, 2019

Instructors

Dr. Guilherme J. M. Rosa Dr. Francisco Peñagaricano (University of Wisconsin-Madison) (University of Florida-Gainesville) -1.12(0.38)**BF10** -0.67 (0.16) LOIN 1.19 (0.39) -0.22 (0.07) 0.23 (0.05) AKR7A2 -0.15 (0.05) FA 0.37 (0.05) 0.51 (0.15) -0.11(0.02)SMIM12 0.64 (0.09) ZNF2 0.12(0.02) 0.03 (0.01) -0.33 (0.05) (PTOV1) 0.26 (0.05) 0.14 (0.04) 0.33 (0.08)

Main contents of the course

- Correlation and Causation
- Basics of Matrix Algebra
- Aspects of Multivariate Distributions
- Inference with Multivariate Models
- Introduction to Graphical Models
- Structural Equation Models in Quantitative Genetics
- Bayesian Networks
- Applications in Genetics and Genomics
- R packages: Rgraphviz, pcalg, bnlearn, qtlnet, sem, lavaan, among others

Detailed information is available at the following link: www.dafnae.unipd.it/graphical-models Contact: Prof. Alessio Cecchinato (alessio.cecchinato@unipd.it)