Armidale Genetics Summer Course 2019

University of New England

Introduction to Graphical Models with Applications to Quantitative Genetics and Genomics

Teachers:　**Dr. Guilherme J. M. Rosa**
University of Wisconsin-Madison

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University of Florida-Gainesville

Dates:　**Tuesday January 28 – Friday February 1, 2019**

Organized by the University of New England, Armidale, Australia

Program

Time	session	topic	instructor	place
Tuesday				
9:00-10.30	Lec 1	Intro: correlation and causation	G	EM1
11:00-12.30	Lec 2	Matrix basics, Probability, random variables	G	EM1
1:30-3	Lec 3	Path Analysis	G	EM1
3:30-5	Lec 4	Estimation, Independence test	G	EM1
5-7		Course BBQ		tba
Wednesday				
9:00-10.30	Lec 5	Correlation networks	F	EM1
11:00-12.30	Lab 1	Correlation networks	F	W77
1:30-3	Lec 6	Mixed Models	G	EM1
3:30-5	Lec 7	Structural Equation Models	G	EM1
Thursday				
9:00-10.30	Lec 8	Latent variables	F	EM1
11:00-12.30	Lab 3	Structural Equation Models	F	W77
1:30-3	Lec 9	Bayesian Networks	G	EM1
3:30-5	Lec 10	Examples: prediction and causal inference	G + F	EM1
7-9		Course Dinner		tba
Friday				
9:00-10.30	Lab 4	Bayes Nets	F	W77
11:00-12.30	Lec 11	Instrumental variable	G	EM1
1:30-2.30	Lec 12	GWAS and QTL analysis	F	EM1
3:00-4.00	Lab 5	GWAS and QTL analysis	F	W77

EM1 = large lecture theatre building W55
W77 = large prac room building W77

We start in building W55 (Natural Resources Management Building)
The lecture theater is on the right if you come up the stairs
The labs will be in W77 (New Ag Education Building)

Here is a link to the campus map,
http://www.une.edu.au/__data/assets/pdf_file/0004/161770/une-academic-campus-map-20170330.pdf

We will mainly work in 4 x 1.5 time slots a day
Morning tea break 10.30-11.00   Courtyard of W55 building (except on Thursday, when it will be in W47)
Lunch 12.30-1.30   Homestead Tea room (building W47)
Afternoon tea 3.00-3.30   Courtyard of W55 building