Dipartimento di Statistica e Metodi Quantitativi
Dottorato in Statistica e Matematica per la Finanza

Bayesian Statistics:
Modelling, computation and testing

Ioannis Ntzoufras - Valen Johnson

DISMEQ, U7 Building, Via Bicocca degli Arcimboldi 8, 20126 Milano

Syllabus
Part I
Instructor: **Ioannis Ntzoufras** (Athens University of Business and Economics)

- *Introduction to Bayesian Logic*
- *MCMC methods*
- *Bayesian regression analysis*
- *Introduction to Bayesian modelling using Winbugs*
- *Bayesian model and variable selection*

Monday, May 11th: 10:00 – 12:00 (pc Lab714 - 1st floor)
Thursday, May 12th: 10:00 – 12:00 (pc Lab714 - 1st floor)
Wednesday, May 13th: 10:00 – 13:00 (pc Lab711 - 1st floor)
Thursday, May 14th: 10:00 – 13:00 (pc Lab711 - 1st floor)
Friday, May 15th: 10:00 – 12:00 (pc Lab714 - 1st floor)

Part II
Instructor: **Valen Johnson** (Texas A&M University, College Station, TX, USA)

- *Review of Bayesian testing procedures and objective Bayes testing methodology*
- *Non-local priors, uniformly most powerful Bayesian tests*
- *Bayesian variable selection revisited, with applications of non-local priors*
- *Latent variable models for ordinal data*
- *Latent variable models for multirater ordinal data and rank data; joint modeling of ordinal and rank data*
- *Introduction to likelihood-free inference and multiple acceptance sampling*

Monday, June 8th: 9.30 – 12.30
Tuesday, June 9th: 9.30 – 12.30
Wednesday, June 10: 9.30 – 12.30
Thursday, June 11: 9.30 – 12.30
Room: Dismeq Seminar Room (room 4026, 4th floor)

The course is targeted at PhD students and young researchers in Statistics, Biostatistics, Econometrics, and in any other field dealing with empirical research, such as Economics and Finance. Participation is free but for organizational reasons we ask to register by sending an email to nicoletta.alghisi@unimib.it

For further information: Prof. Guido Consonni (*guido.consonni@unicatt.it*)