



HARMONY

Novel tools for test evaluation and
disease prevalence estimation

<https://harmony-net.eu/>



COST ACTION CA18208

Introduction to Bayesian Disease Measurement (BDM) for Health scientists

Location: [Joist Innovation park, Larissa, Greece](#)

Dates: 25-27 October 2022



The event is a training school, part of the HARMONY COST Action 18208 training activities, with introductory didactic teaching and hands-on practical sessions on Bayesian methods for true prevalence estimation & diagnostic test evaluation.

The following core topics will be covered:

1. Running basic models in JAGS
2. Apparent & true prevalence estimation
3. How to choose a prior distribution?
4. Diagnostic test evaluation with Hui-Walter models



Funded by the HORIZON 2020
Framework Programme of the
European Union





HARMONY

Novel tools for test evaluation and disease prevalence estimation

<https://harmony-net.eu/>

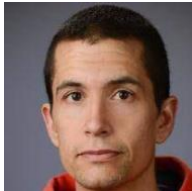


COST ACTION CA18208

Pre-course preparation work will also be provided as a prerequisite for attending the course. Prior experience of Bayesian statistics or latent class methods is not expected, but basic statistical knowledge and R programming skills are expected. Participants will have to bring their own-laptops.

The primary learning objective of the school is that participants understand how to implement these methods on their own data, both in terms of the practice of Markov chain Monte Carlo (MCMC) and how to interpret the results.

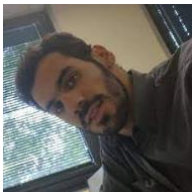
Trainers



Dr. Julio Alvarez, Spain



Prof. Polychronis Kostoulas, Greece



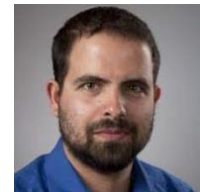
Mr. Eleftherios Meletis, Greece



Prof. Matthew Denwood, Denmark



Dr. Konstantinos Pateras, Greece



Trainees

The training school is organized under funding from COST Association and financial support is provided according to COST rules*.

[Selected participants will receive an official invitation from e-COST.](#)

Where to Register: <https://forms.gle/Y7ED2rQ9bLsSdHAH6>

Deadline to Register: Monday 10 October 2022

For further details of the program and information about financial support please contact Eleftherios Meletis (emeletis@outlook.com).

*Financial support

The reimbursement of incurred accommodation, meals, and local travel expenses in the meeting country is paid as one item known as daily allowance [**Greece 193 EUR/day**]. During the training school all participants have to sign the attendance list both days. More information on transport expenses (car travel, airplane/train/bus/ferry travel) can be found in Appendix 1 – Section 3.1. [COST Annotated rules document.](#)



Funded by the HORIZON 2020 Framework Programme of the European Union





HARMONY

Novel tools for test evaluation and disease prevalence estimation

<https://harmony-net.eu/>



EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY

COST ACTION CA18208

Date	Start	End	Session Type	Title
Tues 25 Oct 2022				Room Name - TBA
	09:00	09:30	Didactic Teaching	Bayes' theorem – Predictive values
	09:30	10:15	Practical session and Discussion	
	10:15	10:45		Coffee break
	10:45	11:15	Didactic Teaching	Running basic models in JAGS – summary of pre-course work
	11:15	12:00	Practical session and Discussion	
	12:00	12:30		Coffee break
	12:30	13:00	Didactic Teaching	Bayesian estimation for proportions – apparent prevalence estimation
	13:00	14:00	Practical session and Discussion	
14:00	15:00		Lunch break	
Wed 26 Oct 2022	09:00	09:30	Didactic Teaching	How to choose and generate prior distributions? PriorGen R-package
	09:30	10:15	Practical session and Discussion	
	10:15	10:45		Coffee break
	10:45	11:15	Didactic Teaching	How the priors affect the posteriors? Examples with apparent prevalence estimation
	11:15	12:00	Practical session and Discussion	
	12:00	12:30		Coffee break
	12:30	13:00	Didactic Teaching	Bayesian true prevalence estimation
	13:00	14:00	Practical session and Discussion	
	14:00	15:00		Lunch break
Thu 27 Oct 2022	09:00	09:30	Didactic Teaching	Sensitivity and Specificity estimation with a gold standard
	09:30	10:30	Practical session and Discussion	
	10:30	11:00		Coffee break
	11:00	11:30	Didactic Teaching	Sensitivity and Specificity estimation without a gold standard (The Hui-Walter paradigm)
	11:30	12:30	Practical session and Discussion	
	12:30	13:00		Event Closure - Lunch box



Funded by the HORIZON 2020
Framework Programme of the
European Union

