UNIVERSITÀ DEGLI STUDI FIRENZE
Dipartimento di Statistica, Informatica, Applicazioni "Giuseppe Parenti"
Eccellenza 2023-2027

Babak Shahbaba
(UNIVERSITY OF CALIFORNIA, USA)

24 February 2026, 10.00 am
Room 205 Campus Morgagni F

Bayesian Computational Methods

This workshop provides a hands-on introduction to computational methods used in Bayesian data analysis. Participants will learn how Bayesian models are implemented using modern computational tools. The emphasis will be on understanding both the principles and practical aspects of Bayesian computation through examples and coding exercises. We will begin with a brief overview of the Bayesian framework and its advantages for modeling uncertainty and incorporating domain knowledge. The core of the workshop will focus on Markov chain Monte Carlo (MCMC) methods, including the Metropolis–Hastings algorithm, Gibbs sampling, and Hamiltonian Monte Carlo. The workshop will also cover variational inference as an alternative approach for approximating posterior distributions.