UNIVERSITÀ DI TORINO

ID

VP_145_MAT

Visiting Professor Program
Academic Year 2025/2026

TEACHING COMMITMENT: 16 hours

COURSE TITLE
Bayesian Statistics

TEACHING PERIOD
I semester

SCIENTIFIC AREA
Probability/Statistics

LANGUAGE USED TO TEACH
English

COURSE SUMMARY
The visiting professor is expected to deal with the second part of the program, focussing on Bayesian nonparametric statistics. Topics to be covered are (i) the Dirichlet Process, definition and constructions; (iii) mixtures of Dirichlet processes; (iv) Hierarchical Dirichlet process; (v) Pitman-Yor processes and species sampling models; (vi) Normalised random measures with independent increments.

LEARNING OBJECTIVES
Students will learn how to model statistical problems with Bayesian nonparametric tools, with a deep insight into their theoretical properties. Students will possess the ability to devise appropriate computational algorithms for their implementation.

OTHER ACTIVITIES BESIDE THE COURSE

The visiting professor is expected to deliver a talk on her/his current research within the statististics seminar series of the Collegio Carlo Alberto. The students will be encouraged to attend in view of possible M.Sc. thesis supervision.

VISITING PROFESSOR PROFILE

The Visiting Professor is expected to have a strong interest in application of Bayesian Statistics to different types of problems, developing novel modelling strategies, as well as algorithmic solutions, devised to offer deeper insights in the investigation of modern problems.

CONTACT REFERENT

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