



Department of Decision Sciences

## Occasional Seminars

**Wednesday, 4<sup>th</sup> May 2016**

**12:30 pm**

Room 3-E4-SR03

Via Rontgen 1, 3rd floor

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Università di Pavia

## Dependent random measures for heterogeneous data

Abstract:

The talk provides an overview of some recent work on random probability measure vectors and their role in Bayesian statistics. Indeed, dependent nonparametric priors are useful tools for drawing inferences on data that arise from different, though related, studies or experiments and for which the usual exchangeability assumption is not satisfied. The presentation will focus on models based on completely random measures, or suitable transformations thereof. Some of their distributional properties relevant for prediction will be discussed when their structure is of additive, hierarchical or nested type. These theoretical results are also important for devising Gibbs sampling schemes that will be implemented for analyzing data in contexts of species sampling problems and survival analysis.