
Lunedì 14 Novembre 2016 ore 11.00
Aula Demografica 2062 (2° piano – Ed. U7).
Via Bicocca degli Arcimboldi, 8 – 20126 Milano

"Stochastic block models: inferential developments in the context of static and dynamic social networks"

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(joint work with M. F. Marino and S. Pandolfi - University of Perugia)

Abstract

Stochastic block models (SBMs) are commonly used in social network analysis to discover communities and clusters of individuals having a similar behavior. Despite the simplicity of the assumptions of these models, inference remains problematic because the model likelihood cannot be computed and this limits their applicability. The talk is focused on two known methods of inference for SBMs and compares these methods with a new proposal that shows a great potential. The known methods rely on composite likelihood and variational inference. The proposed method is based on a classification likelihood, but has features in common with the previous two. The extension of SBMs for the analysis of longitudinal social network data is also illustrated, including some features regarding reciprocity. An application based on the Enron email dataset is used as an illustration, together with a series of simulations.

Tutti gli interessati sono invitati a partecipare

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