

THE CRM APPLIED MATHEMATICAL AND PHYSICS (CAMP) SEMINARS



CENTRE DE RECERCA MATEMÀTICA

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Equilibrium statistical mechanics and Networks: A (short, basic) introduction

Abstract:

In this talk I will justify the need for big (analytical) models in the era of big data. Using a particular example on human mobility records, I will introduce some basic concepts about the use of maximum entropy models as null proxies to assess relevant features observed in big datasets susceptible to be represented as complex networks.

In particular, a quick review over the theory of ensembles applied to networks covering the three fundamental collectivities (micro-canonical, canonical and grand-canonical) will be performed.

Hence, I will try to introduce from a "modern" viewpoint the tools laid by Gibbs in the XIXth century and show that they can be very useful to address XXIth century problems.

Date:	February 27, 2014
Place:	Room C1/028
Time:	12:00

