

## Public Lecture, IPM-Isfahan

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Citle:

## Geometric graphs and graph limits

**Abstract**: Many real-life networks can be modeled by stochastic processes with a spatial embedding. For example, in a social network, vertices may be considered as members of a social space, where the coordinates represent the interests and background of the users, and the probability of a link occurring between two vertices decreases as their metric distance increases. A fundamental question is to determine whether a given network is compatible with a spatial model. We show how to recognize graph sequences produced by random graph processes that have a natural embedding into the real line, using techniques from the theory of graph limits as pioneered by Lovasz, Szegedy and others. This talk is based on work joint with Huda Chuangpishit, Matt Hurshman, Jeannette Janssen, and Nauzar Kalyaniwalla.

Jun 16, 2016 (27 th khordad 1395) at 11:00-12:00.

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