



سمینار هفتگی ماده چگال نرم

## Evolutionary dynamics on network structures

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### Abstract

In this talk I review physical models of evolution beginning from concept of fitness, and mutation-selection processes of Darwinian evolution. These models are used to describe phenomena such as antibiotic resistance in microbial populations, evolution of carcinoma and viral spread of information in social networks. We focus on evolutionary models on general network structures. These are known as evolutionary graphs. We discuss what evolutionary graphs can give rise to better chance of selection for new mutants (amplifiers) and what structures suppress the selection. We address the notion of selection in heterogeneous and random environment where environmental variability can affect fitness of species across the population.

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مکان (کلاس مجازی آقای دکتر اجتهادی):

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