



# Avviso di Seminario

**Martedì 3 Maggio 2016 alle ore 16:00**

Presso l'aula Magna del Dipartimento di Fisica e Chimica  
Viale delle Scienze, Edificio 18, Palermo

il

**Prof. Gholamreza Jafari**

del Department of Physics  
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terrà un seminario dal titolo:

## **How do censorship and history of events Influence on Emerging Monopoly?**

**Abstract:** A power law degree distribution is displayed in many complex networks and Barabási-Albert introduced preferential attachment model to explain these phenomena. However, in many real social and economic networks, deviation from power-law behavior is observed. Such networks also have giant hubs far from the tail of the power law distribution. I propose two models based on information 'transparency' (i.e. how much information is visible to others) and the history of events, which can explain the power structure in societies with non-transparency in information delivery. The emergence of very high degree nodes is explained as a direct result of censorship. Based on these assumptions, we define four distinct transparency regions: perfectly non-transparent, low transparent, perfectly transparent regions and regions where information is exaggerated. We observe the emergence of some very high degree nodes in low transparency networks. It is shown that the low transparency networks are more vulnerable to attack and the controllability of low transparent networks is more difficult than for the others.



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