Dipartimento di Scienze Statistiche



## **AVVISO DI SEMINARIO**

Il 15 maggio 2024, in aula 34 del Dipartimento di Scienze Statistiche, dalle ore 15, il Prof.

## **Nicos Georgiou**

della University of Sussex, Regno Unito, terrà un seminario dal titolo

## Title: The tree-TASEP on Galton-Watson trees

**Abstract:** We define a totally asymmetric simple exclusion process on trees, where the particles enter the tree from a reservoir attached to the root. Particles can only jump following edges on the tree and only if they are jumping

away from the root, to a non-occupied vertex.

We are interested in two different aspects of this particle system. First we want to investigate the current of particles across a given generation at a specific time, when we start from an initially empty initial condition. Second, we would like to obtain some information about the current across a given ray. Both answers depend heavily on our choice of jump rates for the particles and the tree geometry and different regimes of behaviour will be presented during the talk. Our results rely on a crucial estimate of the time it takes for the trajectories of the first *N* particles to decouple in the tree.

This is joint work with N. Gantert (TUM) and D. Schmid (Columbia)

Tutte le persone interessate sono invitate a partecipare.

Enrico Scalas