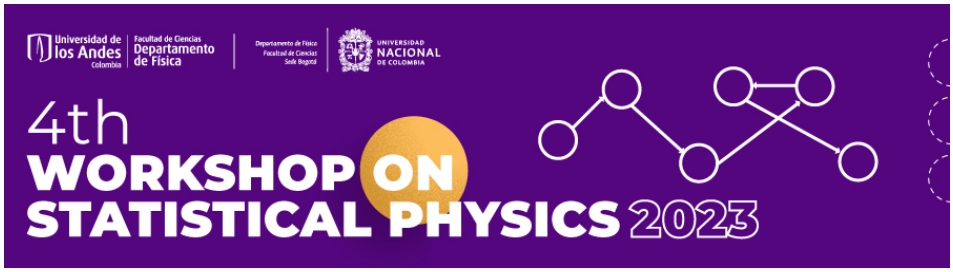

Contribution ID: **46** Tipo: **Invited talk**

Urban traffic dynamics through the lens of percolation theory

jueves, 5 de octubre de 2023 14:20 (20 minutos)

Three short stories will be used to illustrate how percolation theory can be used to diagnose and understand some of the urban mobility problems that are faced today by some of the world's cities. All the stories have in common that they address how the local flows in the roads are organized collectively into a global city flow. The third story characterizes this organization process of traffic as traffic percolation where the giant cluster of local flows disintegrates when the second largest cluster reaches its maximum. Traffic percolation thus opens a new approach in network and transportation science. The talk will discuss how combining traffic percolation with the conventional approaches can open up insightful avenues for research aimed at alleviating traffic congestion in our cities.

Autor primario: Dr OLMOS, Luis Eduardo (Universidad de Medellín)

Presentador: Dr OLMOS, Luis Eduardo (Universidad de Medellín)

Session Classification: Invited Talks

Track Classification: Statistical Physics