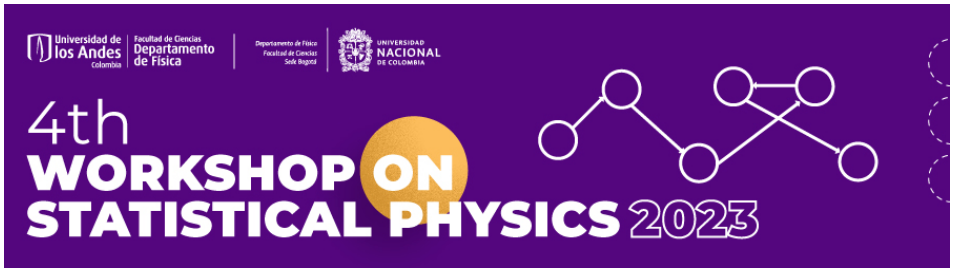

Contribution ID: **15** Tipo: **Invited talk**

Discrete-time random walks with stochastic restart on networks: when resetting becomes advantageous?

jueves, 5 de octubre de 2023 14:40 (20 minutos)

When a discrete-time process on a network is stochastically brought back from time to time to its starting node, the mean search time needed to reach another node of the network may be significantly decreased. In other cases, however, resetting is detrimental to search. Using the eigenvalues and eigenvectors of the transition matrix defining the process without resetting, we derive a general criterion for finite networks that establishes when there exists a non-zero resetting probability that minimizes the mean first passage time (MFPT) at a target node. We apply these results to the study of optimal transport on different structures including deterministic and random networks.

Autor primario: Dr PÉREZ RIASCOS, Alejandro (Universidad Nacional de Colombia)

Presentador: Dr PÉREZ RIASCOS, Alejandro (Universidad Nacional de Colombia)

Session Classification: Invited Talks

Track Classification: Statistical Physics