

Seminario de Probabilidades

Orador: Jonas Arista (Universidad de Chile- CMM)

Título: Non-intersecting paths in the plane, loop-erased walks and random matrices.

Resumen: Non-intersecting processes in one dimension have long been an integral part of random matrix theory, at least since the pioneering work of F. Dyson in the 1960s. For planar (two-dimensional) state space processes, it is not clear how to generalize these connections since the paths under consideration are allowed to have self-intersections (or loops). In this talk, we address this problem and consider systems of random walks in planar graphs constrained to a certain type of non-intersection involving their loop-erased parts (this is closely related to connectivity probabilities of branches of the uniform spanning tree). We show that in a suitable scaling limit in terms of independent planar Brownian motions, certain exist distributions also have connections with random matrices, mainly Cauchy-type and circular ensembles. This is joint work with Neil O'Connell.

El enlace para conectarse al seminario es:

Unirse a la reunión Zoom

<https://reuna.zoom.us/j/84521834914?pwd=OTZ6Y0NWM3pYTGtTbEt3c0luTG96UT09>

ID de reunión: 845 2183 4914

Código de acceso: 997973

Miércoles 09 de Junio a las 16:15 horas.