

Chilean Probability Seminar

Orador: Diederik van Engelenburg (University of Vienna, Austria)

Título: On the duality between height functions and continuous spin systems.

Abstract: We revisit the well known duality relation between integer valued height functions and spin systems with $O(2)$ symmetry.

We will apply some simple corollaries from this duality to transfer information from one model to the other.

First, we deduce a type of Gaussian domination for the height-function variance.

Second, we deduce the monotonicity of this variance with respect to a natural temperature parameter.

Finally, we show how "delocalisation" of planar height functions implies a so-called BKT phase transition in the dual (planar) spin models.

This is based on joint work with Marcin Lis <https://arxiv.org/abs/2303.08596> and perhaps <https://link.springer.com/article/10.1007/s00220-022-04550-3>.

El enlace para conectarse al seminario es:

Unirse a la reunión Zoom

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

Miércoles 29 de Marzo a las 16:15 horas, Sala de Multimedia, Sexto Piso, Torre Norte, Beauchef 851



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