

Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 4th November 14:15

Online meeting (Webex)

The cluster expansion and combinatorics

WILL PERKINS

(Georgia Tech)

The cluster expansion is a classical tool from statistical physics used to understand systems of weakly interacting particles in the high temperature regime of statistical physics models. It can also be a very useful tool in probabilistic, extremal, and enumerative combinatorics and in the study of large deviations in probability theory. I will give an introduction to the cluster expansion, present some examples of combinatorial applications, and try to provide some intuition about when the cluster expansion should or should not be a useful tool for a particular problem.

Meeting link:

<https://tugraz.webex.com/tugraz/j.php?MTID=m44797227fd680cc7956ebb840b6f033a>

Meeting number: 2730 500 3129

Password: vQydpg372D4

Joshua Erde, Mihyun Kang, Michael Missethan