



Seminar/Talk

# One-arm exponents for the high dimensional Ising model

**Diederik van Engelenburg**

TU Wien

Host: Laszlo Erdős & Jan Maas

In this talk, I will focus on behavior of the Ising model in high dimensions ( $d \geq 4$ ). Widom proposed that thermodynamic quantities follow power laws governed by critical exponents, and above the upper critical dimension  $d_c = 4$ , these exponents reduce to the mean-field values (matching those on trees or complete graphs). I will talk about a recent work about the so-called one-arm event (the origin connects to distance  $n$ ) in the FK-Ising model. We observe that this exponent depends on the boundary condition: for wired boundary conditions, we prove that this probability decays up to constants as  $n^{-(1)}$  for  $d \geq 4$ , whereas in infinite volume we prove that it decays as  $n^{-(2)}$  for  $d \geq 6$ , but not for  $d = 4, 5$ .

**Monday, April 20, 2026 05:00pm - 06:00pm**

Central Bldg / O1 / Mondi 2a (I01.O1.008)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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