

**Mathematics** 

## Inn'formal Probability Seminar

## Pierre-François Rodriguez (Imperial College London)

## "On random walks and percolation"

## Abstract:

The vacant set of the random walk on the torus undergoes a percolation phase transition at appropriate timescales in dimensions 3 and higher. The talk will review this critical phenomenon, the study of which was initiated by Benjamini and Sznitman, and discuss recent progress regarding the nature of the transition, both for this model and its infinite-volume limit, the vacant set of random interlacements. The discussion will lead up to recent progress regarding the long purported equality of several critical parameters naturally associated to the transition.

