Random subcube intersection graphs

Victor Falgas–Ravry[*]

Abstract

In this talk we introduce two model of *random subcube intersection graphs*: given a vertex set V, we associate to each $v \in V$ a randomly chosen subcube $A_v \subseteq Q_d$ of the d-dimensional hypercube, and set an edge between $v, w \in V$ if $A_v \cap A_w \neq \emptyset$. Our motivation is to study random 'compatibility' between vertices.

We describe the clique behaviour of our models, covering of the ambient hypercube, degree distribution and some open problems on independence and connectivity.

This is joint work with Klas Markström (Umeå).