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SEMINARIO CONJUNTO

Matemáticas Discretas y AGCO

SPEAKER:

Dieter Mitsche
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TITLE:

Strong-majority bootstrap percolation on regular graphs with low dissemination threshold

ABSTRACT:

Consider the following model of strong-majority bootstrap percolation on a graph. Let r be some positive integer, and p in [0,1]. Initially, every vertex is active with probability p, independently from all other vertices. Then, at every step of the process, each vertex v of degree deg(v) becomes active if at least (deg(v)+r)/2 of its neighbours are active. Given any arbitrarily small p>0 and any integer r, we construct a family of d=d(p,r)-regular graphs such that with high probability all vertices become active in the end. In particular, the case r=1 answers a question and disproves a conjecture of Rapaport, Suchan, Todinca, and Verstraete (Algorithmica, 2011).

Joint work with X. Perez-Gimenez and P. Pralat.

Miercoles 04 de Noviembre a las 14:30 hrs, Sala de Seminarios Multimedia CMM, 6to piso, Torre Norte, Beauchef 851.