

ANTICONCENTRATION VIA THE STRONG PERFECT GRAPH THEOREM

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In this talk we shall address anticoncentration inequalities for sums of random vectors. In particular, we shall discuss how to asymptotically establish two conjectures: one by Lee Jones (1978) and another by Leader-Radcliffe (1994). Both of the latter conjectures are generalizations of the classical Littlewood-Offord problem. Perhaps surprisingly, the main ingredient to establish the mentioned results is the strong perfect graph theorem by Chudnovsky, Robertson, Seymour and Thomas (2002).