

# Clustering properties of intersection graphs and affiliation networks

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Given integer  $k$ , one selects at random a vertex of degree  $k$ . What is the probability that two randomly selected neighbours of this vertex are adjacent? Given integer  $k$ , one select at random a pair of vertices having  $k$  common neighbours. What is the probability that these two selected vertices are adjacent? These questions make sense in real networks where adjacency relations are statistically dependent. I shall present some asymptotic results for sparse random intersection graphs with large number of vertices. A comparison of a real affiliation network data with related intersection graph models will be considered.