

ON  $(k, l)$ -RADIUS OF RANDOM GRAPHS

MONIKA HORVÁTHOVÁ

Problems of distance are frequently considered in graph theory. It is useful to know the diameter, the radius and the center of associated graphs. In this contribution we introduce  $(k, l)$ -radius which generalizes basic graph invariants connected with distance. We prove that for any fixed pair  $k, l$  the  $(k, l)$ -radius is equal to  $2\binom{k}{2} - \binom{l}{2}$  for almost all graphs. Since for  $k = 2$  and  $l = 0$  the  $(k, l)$ -radius is equal to the diameter, our result is a generalization of the known fact that almost all graphs have diameter two.