Irredundant and Mixed Ramsey Numbers Revisited

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A set of vertices $X \subseteq V(G)$ is irredundant if each vertex $x \in X$ is either isolated in the induced subgraph $\langle X \rangle_G$ or else has a private neighbor $y \in V \setminus X$ that is adjacent to $x$ alone among the vertices of $X$. The irredundant Ramsey number $s(m, n)$ is the smallest positive integer $N$ such that in every (red, blue) coloring of the edges of $K_N$ there is either an $m$-element irredundant set in the blue graph or an $n$-element irredundant set in the red graph. For the mixed Ramsey number $t(m, n)$ the second alternative is that there is an $n$-element independent set in the red graph. In this talk, we survey asymptotic bounds for irredundant and mixed Ramsey numbers.