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On the Ramsey Number of Trees-complete Graphs

Gholamreza Omidi
Isfahan University of Technology and IPM
Iran

For given graphs $G_1, G_2, \ldots, G_t$ the multicolor Ramsey number $R(G_1, G_2, \ldots, G_t)$ is the smallest positive integer n such that if the edges of a complete graph K_n are partitioned into t disjoint color classes giving t graphs $H_1, H_2, \ldots, H_t$, then at least one H_i has a subgraph isomorphic to G_i. We conjecture that

$$R(T_1, \ldots, T_p, K_{m_1}, \ldots, K_{m_t}) = (R(T_1, \ldots, T_p) - 1)(R(K_{m_1}, \ldots, K_{m_t}) - 1) + 1,$$

where T_i, $1 \leq i \leq p$, is a tree and $m_1, \ldots, m_t$ are positive integers. We show that this conjecture is true if T_i is a large tree with small number of leaves for some $1 \leq i \leq p$ and we establish the conjecture for $p \leq 2$.