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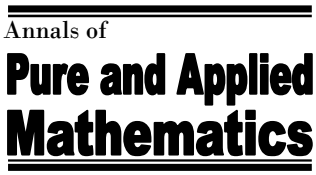

On a Ramsey Problem Involving Quadrilaterals

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Abstract. Let $j \geq 3$. Given any two coloring (consisting of say red and blue colors) of the edges of a complete graph $K_{j\times s}$, we say that $K_{j\times s} \rightarrow (C_4,G)$, if there exists a copy of a red C_4 or a copy of blue G in it. Let $m_j(C_4,G)$ denote the smallest positive integer s such that $K_{j\times s} \rightarrow (C_4,G)$. This paper deals with finding the exact values $m_j(C_4,G)$ for all possible proper subgraphs G of K_4.

Keywords: Ramsey theory, multipartite Ramsey numbers

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