Ramsey with wild edges

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Ramsey numbers determine the minimum number of vertices required in a complete graph to guarantee the existence of some monochromatic structure. Motivated by recent work of Lesgourgues, Liebenau, and Taylor, we investigate a variant of Ramsey numbers where a matching simultaneously receives every color, which we call a wild matching. We consider how the addition of this sparse structure affects the Ramsey number for various graphs, determining this variant for stars and bounds on this variant for cycles.

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