

# Forbidden pairs and perfect graphs

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joint work with Petr Vrána

We characterize pairs  $\{X, Y\}$  of graphs such that all  $\{X, Y\}$ -free graphs (distinct from  $C_5$ ) are perfect. Furthermore, we present similar characterizations considering all graphs with additional constraints of being distinct from an odd cycle, or being connected, or being of independence at least 3, or having at least  $n$  vertices.

We view the present topic as a follow-up in the study started in [2] and elaborated in [1]. As the main tools, we use the Strong perfect graph theorem [3] and Ramsey's theorem [4].

## References

- [1] C. Brause, P. Holub, A. Kabela, Z. Ryjáček, I. Schiermeyer, P. Vrána: On forbidden induced subgraphs for  $K_{1,3}$ -free perfect graphs, submitted.
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- [4] F. P. Ramsey: On a problem of formal logic, *Proceedings of the London Mathematical Society* 30 (1930), 264–286.