

# Guangzhou Discrete Mathematics Seminar



## *Size Ramsey numbers of forests versus double stars and brooms*

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For finite, simple graphs  $F, G$  and  $H$ , we write  $F \rightarrow (G, H)$  to denote that, for every 2-coloring of the edges of  $F$ , there exists a monochromatic subgraph isomorphic to  $G$  or  $H$ . The *size Ramsey number*  $\hat{r}(G, H)$  of two graphs  $G$  and  $H$ , introduced by Erdős, Faudree, Rousseau and Schelp in 1978, is defined as  $\hat{r}(G, H) = \min\{e(F) : F \rightarrow (G, H)\}$ . A *double star* is a graph with two disjoint stars and an edge connecting their centers, and a *broom* is a graph which is a path with a star at one end. In this talk, I will present some exact values and bounds of the size Ramsey numbers of forests versus double stars and brooms.

Joint work with Yaping Mao, Ingo Schiermeyer and Ning Song.

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