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*Variations on the heterochromatic number*

Let  $H$  be a hypergraph and  $c$  be a colouring of the vertex set  $V(H)$  of  $H$ . An edge  $e$  of  $H$  is a *heterochromatic edge* if  $c$  assigns different colours to different vertices of  $e$ . The *heterochromatic number* of  $H$  is the smallest integer  $k$  such that every colouring of  $V(H)$  with  $k$  or more colours produces at least one heterochromatic edge. In this talk we give bounds for the heterochromatic number of certain hypergraphs associated to abstract graphs and to geometric graphs.

This is joint work with Juan José Montellano-Ballesteros.