

# Saturated subgraphs of multipartite graphs

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(joint work with Michael Ferrara, Michael Jacobson, and Paul Wenger)

Given graphs  $G$  and  $H$ , a subgraph  $J$  of  $G$  is  $H$ -saturated if  $H$  is not a subgraph of  $J$ , but the addition of any new edge from  $G$  to  $J$  completes a copy of  $H$ . In this talk, we present results on the minimum size of  $K_t$ -saturated subgraphs of complete balanced multipartite graphs. These results provide a contrast to recent results about the maximum minimum pair-wise edge density of  $K_t$ -free subgraphs of multipartite graphs.