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Akira Saito* (asaito@chs.nihon-u.ac.jp), Nihon University, Japan, and **Colton Magnant**, Georgia Southern University. *Forbidden subgraphs in edge-colored graphs.*

For a graph G , a function $c: E(G) \rightarrow \{1, 2, \dots\}$ is called an *edge-coloring*, and the pair (G, c) is called an edge-colored graph. An edge-colored graph (G, c) is said to be *rainbow* if $c(e) \neq c(f)$ for every pair of distinct edges e and f of G . For a connected graph H , (G, c) is said to be *rainbow H -free* if G does not contain a subgraph G' which is isomorphic to H and $(G', c|_{E(G)})$ is rainbow. For a graph H_1 and its connected subgraph H_2 , every rainbow H_2 -free graph is trivially rainbow H_1 -free. In this talk, we consider the opposite phenomenon and investigate the conditions which make a rainbow H_1 -free graph rainbow H_2 -free. (Received September 16, 2016)