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**Deepak Bal\***, deepak.bal@montclair.edu, and **Louis DeBiasio**. *Size Ramsey number of paths.*

Given a graph  $H$ , let  $\hat{R}(H)$  be the minimum  $m$  such that there exists a graph  $G$  with  $m$  edges such that in every 2-coloring of the edges  $G$ , there is a monochromatic copy of  $H$ . Let  $P_n$  denote the path on  $n$  vertices. To prove that  $\hat{R}(P_n) > m$ , one must show that every graph on  $m$  edges can be 2-colored such that every monochromatic path has order less than  $n$ . We show that  $\hat{R}(P_n) > (3.75 - o(1))n$  thereby improving the previous best-known lower bound of  $(2.5 - o(1))n$  due to Dudek and Pralat. We also discuss some results concerning the  $r$ -color version of the problem. This is joint work with Louis DeBiasio. (Received January 21, 2020)