1084-05-190 **James Carraher**, University of Nebraska-Lincoln, and **Stephen G. Hartke*** (hartke@math.unl.edu), University of Nebraska-Lincoln. *Eulerian circuits with no monochromatic transitions.*

Let G be an eulerian directed graph with a fixed edge coloring (not necessarily proper). A compatible circuit T is an eulerian circuit of G such that no consecutive edges in the circuit have the same color. We characterize the existence of a compatible circuit when G has no vertices of outdegree 3, strengthening results of Fleischner and Isaak. We also discuss the complications that arise when vertices of outdegree 3 are present. (Received August 31, 2012)