

Vertex Patterned Eulerian Coloring

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We introduce a new proper vertex coloring. We define a *Vertex Patterned Eulerian Coloring* to be a proper vertex coloring of an Eulerian graph with the property that there exists an Eulerian cycle with a repeating color pattern. We present our preliminary results including some necessary conditions, bipartite graphs colored with two colors, cycles, small graphs up to six vertices, and initial findings on other families of graphs.