Incidence coloring of subcubic graphs and graphs with given edge weight

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Abstract

An *incidence* (v, e) of a graph G is a pair of incident vertex v and edge e. Two incidences are adjacent if and only if they have the same vertex, they have the same edge, or the two vertices of them form the edge of one of the two incidences. The *incidence coloring* is a graph labeling such that each incidence is assigned a color and adjacent incidences must be colored by different colors.

A *subcubic graph* is a graph in which the degree of each vertex is at most three. The *edge weight* of a graph is defined to be the maximum sum of degrees of adjacent vertices. In this talk, I will introduce some results on incidence coloring of subcubic graphs and graphs with given edge weight.

Keywords: incidence coloring, subcubic graph, edge weight.

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