

Gary MacGillivray

University of Victoria

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Colouring Oriented Graphs

By *colouring* an undirected graph we mean assigning colours to the vertices so that adjacent vertices are assigned different colours. But what should it mean to colour a graph in which every edge has a direction? Colourings of such directed graphs has been an active area of study since 1994. We will start with the the motivation for the definition of an *oriented colouring*, and then survey results in the literature concerning algorithms complexity, bounds for the number of colours needed, and possible analogs of the four colour theorem.