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Christopher Duffy* (christopher.duffy@usask.ca). *Colourings, Homomorphisms, Brooks' Theorem, and Oriented Graphs.*

The definition of graph colouring by way of graph homomorphism allows us to give reasonable definitions for colouring for other types of graph objects. In this talk we consider oriented graph colouring — proper vertex colourings of anti-symmetric digraphs that, in some sense, respect the orientation of the arcs. We see how our intuition for graph colouring both helps and hinders us when we examine colourings of oriented graphs. In particular we explore the state-of-the-art for the oriented graph analogue to Brooks' Theorem for graphs with bounded maximum degree. (Received August 20, 2020)