$\label{eq:peternous} \textbf{PETER DUKES}, \ \textbf{University of Victoria}$

Local balance in graph decompositions

In a balanced graph decomposition, every vertex of the host graph appears in the same number of blocks. We propose the use of coloured loops as a framework for unifying various related local conditions in graph decompositions, including degree-balanced decompositions and equitable block colourings. In the basic case where a single graph with coloured loops is used as a block, an existence theory for such decompositions follows as a straightforward generalization of previous work on balanced graph decompositions. This talk is based on joint work with Flora C. Bowditch.