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*The 2-separated excluded minors for the class of bias matroids*

A matroid is a *minor* of another if it can be obtained from the second by a sequence of operations analogous to edge deletion and contraction in graphs. An excluded minor theorem describes the structure of a family of graphs, or matroids, having no minor isomorphic to some prescribed set of graphs, or matroids. For example, Kuratowski famously characterised planar graphs as precisely those with no  $K_5$  or  $K_{3,3}$  minor. Robertson and Seymour's Graph Minor Theorem states that, as for planar graphs, every family of graphs closed under minors may be characterised by exhibiting a finite set of excluded minors. Much recent work in matroid theory has focused on extending the theory of the graph minors project to certain classes of matroids.

Bias (also called frame) matroids generalise graphic matroids. Bias matroids include the class of Dowling geometries, and are important in matroid structure theory. We present a first step toward showing that there are only finitely many excluded minors for the class of bias matroids. We describe those excluded minors that may be constructed by identifying an element in each of two smaller matroids (*i.e.* obtained by a 2-sum).

This is joint work with Matt DeVos, Luis Goddyn, and Irene Pivotto.