

# Decomposition of a class of binary matroids

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**Abstract.** Seymour's Regular Decomposition Theorem states that every regular matroid can be constructed by taking 1-, 2-, and/or 3-sums from graphic/cographic matroids and copies of  $R_{10}$ . We show that a similar decomposition theorem holds for a class of binary matroids, of which the class of regular matroids is a proper subclass. As a corollary, we prove a conjecture by Dharmatilake about the excluded minors for the class of binary matroids with branch-width at most 3.