

## **On graphs with a small circuit-spectrum**

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Characterizations of classes of matroids with circuit lengths of a few different specified values are provided by many authors including Cordovil, Costalonga, Edmonds, Lemos, Lewis, Maia, Murty, Neudauer, Putnam, Reid, Sheppardson, Wu, and Young. An edge-weighted characterization of this type is given here for graphic matroids where the circuit lengths through a specified element are restricted to two different weights. All sufficiently large graphs of this type are topological minors of a single family of graphs.

Keywords: matroid, circuits, cycles, topological minor