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**Colin Starr\*** (cstarr@willamette.edu), **Erin McNicholas**, **Will Agnew-Svoboda**, **Alana Huszar**, **Jeff Schreiner-McGraw** and **Corrine Yap**. *Unipancyclic Binary Matroids*.

Analogous to the concept of uniquely pancyclic graphs, we define a uniquely pancyclic (UPC) matroid of rank  $r$  to be a (simple) rank- $r$  matroid containing exactly one circuit of each length  $\ell$  for  $3 \leq \ell \leq r + 1$ . Our discussion addresses the existence and properties of UPC matroids. We consider properties of binary UPC matroids in general, and prove that all binary UPC matroids have a connectivity of 2. (Received September 25, 2017)