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Andrew Berget, Christopher Eur* (chriseur@stanford.edu), **Hunter Spink** and **Andrew Tseng**. *Tautological bundles of matroids*. Preliminary report.

Matroid theory has seen fruitful developments arising from different algebro-geometric approaches, such as the K-theory of Grassmannians and Chow rings of wonderful compactifications. However, these developments have remained somewhat disjoint, often with no clear connection between them. We introduce "tautological bundles of matroids" as a new geometric framework for studying matroids. We show that it unifies, recovers, and extends much of these recent developments including log-concavity statements, as well as answering some open conjectures. (Received January 08, 2021)