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Jose Alejandr Samper Casas* (jasamper88@gmail.com). *The facet polytope of a shifted complex.*

We will discuss the polytope that results from taking the convex hull of a family of pure shifted complexes and argue that it behaves like a matroid basis polytope in many different ways. We will then speculate how this may help unify the theories of independence complexes of matroids and allow for new proof strategies in the world of matroid theory. (Received July 19, 2017)