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Caitlyn Booms* (cbooms@wisc.edu), **Daniel Erman** and **Jay Yang**. *Characteristic dependence of syzygies of random monomial ideals*. Preliminary report.

When do syzygies depend on the characteristic of the field? Even for well-studied families of examples, very little is known. For a family of random monomial ideals, namely the Stanley–Reisner ideals of random flag complexes, we prove that the Betti numbers asymptotically almost always depend on the characteristic. Using this result, we also develop a heuristic for characteristic dependence of asymptotic syzygies of algebraic varieties. (Received September 13, 2021)