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Rebecca R.G.* (rrebhuhn@gmu.edu), **Claudia Miller** and **Hamidreza Rahmati**. *Betti numbers of Frobenius powers of ideals in characteristic $p > 0$* . Preliminary report.

Let $R = k[x_1, \dots, x_d]/(f)$ where k is a field of characteristic $p > 0$, and f a nonzero element of R . In the case where $d = 3$ and $f = x_1^n + x_2^n + x_3^n$, work of Kustin, Rahmati, and Vraciu indicates that the syzygies of p^e th bracket powers $I^{[p^e]}$ of $I = (x_1^N, x_2^N, x_3^N)$ cycle through a finite number of modules as e increases. We examine the behavior of the betti numbers of $I^{[p^e]}$ when $d = 3$ but f is chosen generically, using the method of finding resolutions via inverse systems as developed by El Khoury-Kustin and Miller-Rahmati. (Received August 31, 2018)