Trajan Hammonds* (thammond@andrew.cmu.edu). Modified Erdős-Ginzburg-Ziv Constants for \((\mathbb{Z}/n\mathbb{Z}\times\mathbb{Z}/m\mathbb{Z})\).

For an abelian group \(G\) and an integer \(t > 0\), the modified Erdős-Ginzburg-Ziv constant \(s'_t(G)\) is the smallest integer \(\ell\) such that any zero-sum sequence of length at least \(\ell\) with elements in \(G\) contains a zero-sum subsequence (not necessarily consecutive) of length \(t\). We compute bounds for \(s'_t(G)\) for \(G = (\mathbb{Z}/n\mathbb{Z})^2\) and \(G = (\mathbb{Z}/n_1\mathbb{Z} \times \mathbb{Z}/n_2\mathbb{Z})\). We also compute bounds for \(G = (\mathbb{Z}/p\mathbb{Z})^d\) where the subsequence can be any length in \(\{p, \ldots, (d - 1)p\}\). Lastly, we investigate the Erdős-Ginzburg-Ziv constant for \(G = (\mathbb{Z}/n\mathbb{Z})^2\) and subsequences of length \(tn\). (Received September 17, 2019)