Shifting numerical monoids

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Abstract

Consider the family of numerical monoids $S_n = \langle n, n+r_1, \ldots, n+r_k \rangle \subset \mathbb{N}$ obtained by varying n. In this talk, we exhibit periodic behavior of the minimal presentations of S_n when n is sufficiently large. As a consequence, we characterize the eventual behavior of several arithmetic quantities arising in factorization theory.