

Three problems on numerical semigroups

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Abstract

A *numerical semigroup* is a cofinite submonoid of \mathbb{N} . That is, a subset $S \subseteq \mathbb{N}$ containing 0, stable under sum and with finite complement in \mathbb{N} . Equivalently, it is a subset $S \subseteq \mathbb{N}$ of the form $S = \langle a_1, \dots, a_n \rangle = \mathbb{N}a_1 + \dots + \mathbb{N}a_n$ for some globally coprime positive integers a_1, \dots, a_n . In this talk, we shall visit three main problems concerning numerical semigroups: the Frobenius problem (19th century), the Bras-Amorós conjectures (21st century) and Wilf's conjecture (20th century). We shall present selected recent results, together with some proof ideas, concerning mostly the last two problems.

References

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