Abelian groups that are finite automata presentable

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Abstract. Recently it was shown by Tsankov that the additive group of rational numbers does not admit an automatic presentation. More generally, any torsion-free abelian group that is divisible by infinitely many primes is not of this kind. In this talk we extend the result by Tsankov and prove that any torsion-free abelian group G that has an automatic presentation must be the extension of a finite rank free group F by a finite direct sum of Prüfer groups $\mathbb{Z}(p^\infty)$.

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