Locally finite Schreier varieties

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Schreier varieties

Definition.

Definition. Call a variety \mathcal{V} a **Schreier** variety if the subalgebras of the \mathcal{V} -free algebras are \mathcal{V} -free.

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- the variety of left zero $(xy \approx x)$, right zero $(xy \approx y)$, or 'constant' $(xy \approx uv)$ semigroups, or
- one of the varieties \mathfrak{A}_p of elementary abelian groups of exponent p considered as a variety of semigroups.

Evans' warning about $F_{\mathcal{V}}(0)$

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That is, the range of any pseudoconstant is the interpretation of a constant in a Schreier variety.

Main Theorem

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- **(a)** A is polynomially equivalent to an \mathbb{F} -vector space for some finite field \mathbb{F} .

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There is more

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Stage 2. Examine the structure of the free algebras in varieties of these types and show that subalgebras of free algebras are free.

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