# Exposé court

**10** ***New bounds for sets with restricted differences***

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We prove a new upper bound for the size of a set $A \subseteq \{1,\dots,N\}$ which does not contain two different elements $a, b$ for which $a-b \in h(\mathbb{N})$, where $h \in \mathbb{Z}[x]$ is a fixed polynomial. This answers a question of Bloom and Maynard.