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Exponential Patterns in Arithmetic Ramsey Theory

In this talk I will give an overview of some of results and techniques in the area of exponential patterns in arithmetic Ramsey theory. This story begins with the following result: no matter how the integers are finitely coloured, there exist $a, b > 1$ so that $\{a, b, a^b\}$ is monochromatic. From here I will sketch some of the, perhaps surprising, results in this rich area. I will also discuss some open problems and quantitative aspects.