Fermat functional equations revisited
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The problem of the existence of transcendental meromorphic or entire solutions for the Fermat functional equation $f^n + g^n + h^n = 1$ was first studied by Walter Hayman in 1984. It is known that meromorphic (entire) solutions exist for $n \leq 6$ ($n \leq 5$) and no meromorphic (entire) solution exists when $n \geq 9$ ($n \geq 7$). In this talk we will revisit this problem from a more geometric viewpoint. This is a joint work with Sai-Kee Yeung.