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## **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 view point. This is a joint work with Sai-Kee Yeung.