PATIENCE ABLETT, Queen Mary University London
Gotzmann's persistence theorem for smooth projective toric varieties

The Hilbert scheme is a scheme which parameterises subschemes living inside a fixed ambient space. By understanding the geometry of the Hilbert scheme itself, we can learn about the geometry of the subschemes we parameterise. In the case that our fixed ambient space is $\mathbb{P}^n$, this scheme is well understood using Gotzmann's regularity and persistence theorems. In this talk, we look at generalising Gotzmann's persistence result to the setting of any smooth projective toric variety.