

My Favorite Problems Inspired by Tony Iarrobino's Work

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Tony Iarrobino's deep insights into the structure of Artinian Gorenstein algebras, Hilbert schemes, and the geometry of punctual schemes have left a lasting mark on modern algebraic geometry and commutative algebra. In this talk, I will share a collection of my favorite problems, most of which are still open, that are inspired by his work. These include questions about the properties of Artinian ring and the homological and asymptotic behavior of punctual schemes and related Macaulay inverse systems. Along the way, I'll highlight the powerful techniques developed or influenced by Tony and discuss how his vision continues to inspire new directions in the field.