The global solubility for homogeneous polynomials with random coefficients over thin sets

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In this talk, we explore the global solubility of random homogeneous polynomial equations over $\mathbb{Q}$. We begin with a history related to rational solutions of homogeneous polynomial equations. We then outline the motivation behind our works and present our main results. Finally, we sketch the proof of these results. This presentation is based on recent joint works with Heejong Lee, Seungsu Lee and Daniel Flores, and is intended to be accessible to graduate students.