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Unexpected hypersurfaces

In the last half decade or so there has been a growing amount of work on the topic of configurations of points in projective space that admit "unexpected" curves or hypersurfaces. This began in the setting of the projective plane, but more recently has moved in interesting ways into the more general setting of higher dimensional projective space. There have been surprising connections to such diverse things as rank 2 vector bundles on the plane, line arrangements in the plane, Terao's conjecture, the Weak and Strong Lefschetz Properties, hyperplane arrangements, and root systems. Also, interesting geometric properties of our configurations have recently presented themselves. I will begin an overview of this work, with emphasis on a recent preprint of B. Harbourne, U. Nagel, Z. Teitler and myself. Brian Harbourne will continue in his talk, describing other aspects of this joint work.