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Compatibly split subvarieties of the Hilbert scheme of points in the plane

Consider the Hilbert scheme of n points in the affine plane and the divisor "at least one point is on a coordinate axis". One can intersect the components of this divisor, decompose the intersection, intersect the new components, and so on to stratify the Hilbert scheme by a collection of reduced (indeed, "compatibly Frobenius split") subvarieties. This may prompt one to ask, "What are these subvarieties?" or, better, "What are all of the compatibly split subvarieties?"

I'll begin by providing the answer for some small values of n . Following this, I'll restrict to the open affine patch $U_{\langle x, y^n \rangle}$ (now for arbitrary n) and describe a degeneration of the compatibly split subvarieties to Stanley-Reisner schemes.

No knowledge of Frobenius splitting will be assumed.