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

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By a result of Kumar and Thomsen, the standard Frobenius splitting of the affine plane induces a Frobenius splitting of the Hilbert scheme of n points in the plane. It's then natural to ask, ``what are all of the compatibly Frobenius split subvarieties?'' I'll motivate this question and describe the answer for some small values of n. Following this, I'll restrict to a specific affine patch (now for arbitrary n) where I'll describe all compatibly split subvarieties as well as a helpful degeneration to Stanley-Reisner schemes. Time permitting, I'll discuss a connection to Poisson geometry.