Moduli of configurations of points and lines in the plane

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The classical invariant theory of binary forms has produced a collection of gems, which are the moduli spaces of point sets in projective spaces. Among these are the Segre cubic threefold and the Del Pezzo surface of degree five. The thesis of Erik Reuvers contains several new gems, among which the moduli space of configurations in the projective plane which consist of three points and three lines. This variety can be represented as the hypersurface in projective five-space with the amazingly simple equation $xyz = uvw$. It has a huge symmetry group, whose modular meaning is not yet clear.
My talk will discuss the theory of moduli of such configurations, and pay attention to a particular involution on the set of such configurations, called Gale duality. The geometric meaning of this duality will be explained in elementary terms.