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Desargues configurations with self-conjugate points

Desargues theorem states that, if two triangles are in perspective from a point, then the intersections of the corresponding sides are collinear. The associated 10 points and 10 lines form a Desargues configuration. We consider Desargues configurations in a projective plane over a field, and the unique polarity associated with a Desargues configuration. We focus on self-conjugate points in a Desargues configuration. Interestingly, fields of characteristic 2 and 3 both play special roles. This is joint work with Professor Aiden Bruen, Carleton University.