An Introduction to q-Clan Geometries in Characteristic 2

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Starting with a q-clan over a finite field of characteristic 2 the following objects are some of those that may be constructed: a generalized quadrangle with parameters (q^2, q) and subquadrangles with parameters (q, q), a herd of ovals in $PG(2, q)$, a flock of a quadratic cone in $PG(3, q)$, and a line-spread of $PG(3, q)$ (so a projective plane).

The study of these objects, including a detailed examination of the known examples, is the subject of the monograph by Cardinali and Payne. Characteristic 2 allows a tensor product representation of the collineation groups of the various objects that facilitates the computations in a rather pretty way. Even so the many computations involved are intimidating at first glance. In this talk we will introduce some of the terminology and a few of the results in the hope that we can make a reading of this monograph a little less daunting.