

Symplectic Geometry Over Finite Fields 1: One Form, Many Objects

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Abstract

In this talk I will survey what it is known (by me) about objects, mostly geometric, associated to symplectic forms of vector spaces over finite fields. In particular, I will talk about generalized quadrangles, spreads, ovoids, Kerdock codes, and a particular class of strongly regular graphs.

Students are welcome to attend. Just some linear algebra and algebra will be needed to follow the talk.