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Liz Lane-Harvard* (elaneharvard@uco.edu), 100 North University Drive - Box 129, Edmond, OK 73034. *Constructing Strongly Regular Graphs Using Finite Geometry.*

There are many open problems concerning strongly regular graphs: proving non-existence for parameters where none are known; proving existence for parameters where none are known; constructing more for parameters where examples are already known. The work surveyed in this talk will fall under the last two categories. In particular, one of the results overlaps with Paley graph parameters. The methods used to construct these graphs involve symmetry and geometry, with the aid of computer algebra packages to gain insight. (Received August 09, 2015)