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Cyclotomic Strongly Regular Graphs.

We will talk about cyclotomic strongly regular graphs $\text{Cay}(\mathbb{F}_q, D)$ in a broad sense (that is, D is a union of cosets of a subgroup of the multiplicative group \mathbb{F}_q^* of \mathbb{F}_q , not just a single coset of a subgroup of \mathbb{F}_q^*). Many new infinite classes of strongly regular graphs are obtained in this way. This is a joint work with Qing Xiang. (Received September 13, 2010)