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Paul-Hermann Zieschang* (zieschang@utb.edu), Department of Mathematics, University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520. *On schemes which contain a constrained set of involutions.*

Let S be an association scheme, let L be a set of involutions of S , and assume that $\langle L \rangle = S$. The scheme S is called a Coxeter scheme with respect to L if it is constrained with respect to L and if L satisfies the exchange condition (a word by word translation of the group theoretic exchange condition to scheme theory).

It has been shown that Coxeter schemes can be identified with buildings in the sense of. Moreover, from [*; Theorem 12.3.4] one knows that finite Coxeter schemes are quotients of thin schemes if they do not contain nontrivial thin elements and if the underlying set of involutions has at least three elements.

In my talk, I will discuss the question whether there exists a class of schemes which can be identified with twin buildings in the sense of in a similar way as Coxeter scheme can be identified with buildings. If yes, would there be an analogue of the above-mentioned theorem on finite Coxeter schemes?

[*] Zieschang, P.-H.: *Theory of Association Schemes*. Springer Monographs in Mathematics, Berlin Heidelberg New York (2005) (Received August 08, 2007)