

## Exchange Condition and Association Schemes

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An *association scheme* (or briefly a scheme) is an algebraic generalization of the concept of a group action which allows, to a certain extent, to generalize basic concepts, facts, and ideas from group theory. For instance, finite schemes admit a Jordan-Hölder theorem and a Sylow theory. In my talk, I will formulate and investigate an exchange condition for schemes. The ‘Coxeter schemes’ lead naturally to buildings (in the sense of Tits), they also contribute to the ‘inverse problem’ for schemes.

References: 1. *An Algebraic Approach to Association Schemes*, Springer (Lecture Notes in Math. **1628**) Berlin-Heidelberg-New York, 1996. - 2. A generalization of Sylow’s theorems on finite groups to association schemes. *Math. Z.* **241**, 665–672 (2002)