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On Jordan Schemes II

Jordan schemes as introduced by Cameron are non-associative generalizations of commutative association schemes. Such a scheme is proper if it is not the symmetrization of an association scheme.

Inspired by the discovery of the first proper Jordan schemes, and based on work by Hanaki and Miyamoto, an algorithmic search for small proper Jordan schemes was initiated. It relies on orderly generation and dynamic bounds on structure constants. Work is in progress.

It was confirmed that the smallest such scheme has 15 points. Further new objects on 16 and 18 points were found. Computer-free descriptions of these objects are being elaborated.