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**Christopher P. French\*** ([frenchc@grinnell.edu](mailto:frenchc@grinnell.edu)), Noyce Science Center, Grinnell College,  
1116 8th Ave, Grinnell, IA 50112. *Realizing hypergroups as association schemes.*

A hypergroup is an algebraic structure which arises from an association scheme by considering only the relations and their products. Thus, a hypergroup is to an association scheme what an abstract group is to a thin scheme. However, while all abstract groups can trivially be obtained by forgetting the points of a thin scheme, this is not the case for hypergroups. It is natural to seek a way to characterize those hypergroups which arise from association schemes, finite or infinite. As a case study, we consider noncommutative hypergroups of rank four. (Received August 05, 2015)