Multi-Directed Hypergraph Representations of $\{0, +1, -1\}$-Matrices.

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A multi-directed hypergraph is a combinatorial representation of a $\{0, +1, -1\}$-matrix that extends the concepts of signed graphs to hypergraphic analogs. The column dependencies of a $\{0, +1, -1\}$-matrix can be classified using multi-directed hypergraphs. The classification of column dependencies of matrices corresponding to multi-directed hypergraphs whose edge size is two or less is already known. I will discuss the basic structure of multi-directed hypergraphs and the classification of the column dependencies of any $\{0, +1, -1\}$-matrix.

For more information please visit the seminar website at: 
http://www.math.nyu.edu/seminars/geometry_seminar.html.