
SONJA PETROVIC, University of Illinois at Chicago

Edge subrings of hypergraphs

The ideal theory of graphs by now has a rich history. One of the classical problems of interest is to determine the defining ideal of the *edge subring* of a graph. The edge subring of a graph is the monomial subring parametrized by monomials corresponding to the edges of the graph. Their defining ideals have recently been shown to generate important information about a random graph model in algebraic statistics. A more complicated family of algebraic models motivates the generalization of this construction to hypergraphs.

This talk will summarize some of the recent and ongoing work on the defining ideals of the edge subrings of hypergraphs.