

Tutte polynomials and split matroids

Thursday, 22 August 2024 13:55 (25 minutes)

Surprisingly many interesting invariants of graphs, hyperplane arrangements and matroids are valuated. The two most prominent examples of valuated matroid invariants are the Tutte polynomial and the \mathcal{G} -invariant. The relevance of the \mathcal{G} -invariant stems from its universal property that any other valuated invariant can be obtained as a specialization. Nevertheless, the most intensely studied invariant of matroids is clearly the Tutte polynomial as it respects deletion and contraction. An interesting question therefore is on which minor and duality closed classes of matroids is the Tutte polynomial universal. In my talk I will give answer to this question in which the well structured class of (elementary) split matroids plays a prominent role.

This talk is based on joint work with Luis Ferroni.

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