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Decompositions of Toric Ideals of Finite Simple Graphs

I will discuss recent joint work which allows us to construct new finite simple graphs from two known ones in a specified way such that the corresponding toric ideals split. This construction more generally behaves well with respect to generators of the toric ideals of the graphs used in the construction. In some cases the technique allows us to recover the graded betti numbers of the resulting graph given that this information is known for the graphs used to construct it. Finally I hope to discuss more general results about the independence of generators of toric ideals.