

Combinatorial Commutative Algebra and Toric Ideals of Graphs

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Abstract

This talk will discuss the interplay between algebraic properties of certain classes of toric ideals and the combinatorics of finite simple graphs. Namely, we will associate a finite simple graph G with a toric ideal I_G over an appropriate polynomial ring and examine how the combinatorial properties of G can be used to obtain algebraic properties of I_G .