



ALGEBRA SEMINAR

Splittings of toric ideals

By

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Abstract: Let A be a vector configuration in $\mathbb{Z}^m$ such that the affine semigroup $\mathbb{N}A$ is pointed, and let I_A be the corresponding toric ideal. The toric ideal I_A is splittable if it has a toric splitting; namely, if there exist toric ideals I_{A_1} and I_{A_2} such that $I_A = I_{A_1} + I_{A_2}$ and $I_{A_i} \neq I_A$ for all $1 \leq i \leq 2$. We provide a necessary and sufficient condition for a toric ideal to be splittable in terms of A . Special attention is given to the case in which I_A is the toric ideal of a graph. In this case, we provide techniques for finding toric splittings. The talk is based on joint work with Apostolos Thoma.

Date: Wed, 16 April 2025

Time: 13:30

Place: Zoom

To request the event link, please send a message to d.yilmaz@bilkent.edu.tr