

VALLADOLID LECTURE 4 EXERCISE

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Verify this lecture for $\text{trop}(M_{0,5})$.

- (1) Check that $\text{trop}(M_{0,5})$ is the tropicalization of the graphic matroid K_4 . This means, for example, that the circuits of the linear space are the circuits of K_4 .
- (2) We first described $M_{0,5}$ as the complement of a line arrangement in \mathbb{P}^2 . Compute the divisorial valuations on $K(M_{0,5})$ corresponding to these lines, and the corresponding points in \mathbb{R}^5 (when we view $M_{0,5} \subseteq (\mathbb{C}^*)^5$).
- (3) (If you know what $\overline{M}_{0,5}$ is, or are in a group with someone who can explain) Use the boundary of $\overline{M}_{0,5}$ to compute $\text{trop}(M_{0,5})$. (The missing divisors are the exceptional divisors of the blow up of \mathbb{P}^2 at four generic points).