

Combinatorial Determination of Severi Degrees

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Abstract

Following work of S. Fomin and G. Mikhalkin (*J. European Mathematical Society* **12** (2010), no. 6, 1453–1496), and F. Block (*Math. Research Letters* **18**, (2011), no. 4, 621–643), I will consider how to use certain graphs derived from plane tropical curves (i.e., floor diagrams and templates) to understand aspects of the calculation of node polynomials of projective plane curves in elementary combinatorial terms.

This is joint work with Gary Kennedy, Ohio State University, and Florian Block, University of California, Berkeley.