



Seminar/Talk

(Anticanonical) Perspectives on Schubert Varieties

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Host: Tamas Hausel

In a recent work with L. Williams we construct a mirror superpotential for Grassmannian Schubert varieties, which is described explicitly in terms of Pluecker coordinates and Young diagram combinatorics. We also construct an associated polytope and toric degeneration of the Schubert variety. These constructions are based on a particular anticanonical divisor and use tropicalisation. While the superpotential is defined in all cases, it has particularly good properties when the Schubert variety is Gorenstein. In this talk I first plan to give an introduction to some of these polytopal mirror symmetry' results. Then I will report on a more recent paper with Changzheng Li and Mingzhi Yang, where we show how to detect whether a general Schubert variety in G/P is Gorenstein, answering a question of Woo and Yong. We also prove an analogue of an old theorem of Dale Peterson's about smoothness of simply-laced G/B Schubert varieties, now characterising factoriality.

Thursday, June 26, 2025 01:00pm - 03:00pm

Heinzel Seminar Room (I21.EG.101), Office Building West, ISTA



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