

5th ABCD-Seminar

Tuesday, July 12th, 2022, 2:50 pm

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Linear degenerate tropical flag matroids

Grassmannians and flag varieties are important moduli spaces in algebraic geometry. Flag varieties and their degenerations can further be realized as quiver Grassmannians. As linear degenerations of flag varieties are difficult to analyze algebraically, we describe them in a combinatorial setting and further investigate their tropical counterparts. In this talk, I will introduce matroidal and tropical analogs and descriptions of linear degenerate flags and their varieties obtained in joint work with Alessio Borzì. Using techniques from matroid theory, polyhedral geometry and tropical geometry, we use the correspondences between the different descriptions to gain insight on the structure of linear degeneration. Further, we provide some cover relations on the poset of degenerations.