

Colloquium

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EXPLICIT DESCRIPTION OF CERTAIN 3-POINT K-THEORETIC GROMOV-WITTEN INVARIANTS OF FLAG MANIFOLDS

Friday, September 12, 2025
3:00 p.m. SS-256
(tea & coffee at 2:40 p.m.)

ABSTRACT. In this talk, we give an explicit description of certain 3-point K-theoretic Gromov-Witten invariants of flag manifolds for which one component is the line bundle class associated to a (not necessarily dominant) minuscule weight λ ; the other components are Schubert and opposite Schubert classes. In this description (given in terms of the quantum Bruhat graph), we see that a positivity result holds. Also, in the particular case that the weight λ is (the negative of) a fundamental weight, we can show that a quantum K-theoretic divisor axiom holds under a certain condition, which is natural from the representation-theoretic point of view. If time permits, we would like to mention the case that the weight λ is a fundamental weight.