UNIVERSITY AT ALBANY
State University of New York

College of Arts and Sciences
Department of Mathematics and Statistics

Colloquium

Satoshi Naito and Daisuke Sagaki
Tokyo Institute of Technology and Tsukuba University

Explicit Description of Certain 3-Point K-Theoretic Gromov-Witten Invariants of Flag Manifolds

Friday, September 12, 2025
3:00 p.m. HU-124
(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 lambda; 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 lambda 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 lambda is a fundamental weight.