北京理工大學

2024 TALKS IN COMBINATORICS

Tatsuyuki Hikita is an assistant professor working on geometric representation theory at Kyoto University. He is interested especially in certain duality called symplectic duality between representation theory of quantizations of conical symplectic resolutions. He made a conjecture that describes cohomology ring of conical symplectic resolutions in terms of the symplectic duality. He is also interested in the geometry of affine Springer fibers and their relation to the combinatorics of parking functions.

A proof of the Stanley–Stembridge conjecture

The Stanley–Stembridge conjecture was a long-standing problem in algebraic combinatorics which states that the chromatic symmetric function for any $(3+1)$-free graph expands positively in terms of elementary symmetric functions. We explain how to find an inductive and positive formula for elementary symmetric function expansion of the chromatic quasisymmetric function for any unit interval graph, which in particular implies the Stanley–Stembridge conjecture.

2024.11.29 (Fri) 9.00–10.00 am (Beijing time, GMT+8) @zoom 2371185551

Invited by David Guoliang Wang (glw@bit.edu.cn)