Lusztig q weight multiplicities via affine crystals

Friday, 30 August 2024 09:30 (1 hour)

Lusztig q weight multiplicity is a polynomial in q whose positivity has been verified by linking it to a specific affine Kazhdan-Lusztig polynomial. However, a combinatorial formula beyond type A has not been known until recently.

In 2019, Lee proposed a combinatorial formula for type C using a novel combinatorial concept known as semistandard oscillating tableaux. We will outline the proof of Lee's conjecture and discuss how it can be extended to type B spin weights case.

Based on joint work with Hyeonjae Choi and Seung Jin Lee.

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