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q, t-Fuś-Catalan numbers for complex reflection groups. (English. French summary)


Summary: In type A, the q, t-Fuś-Catalan numbers Cat^m_n(q,t) can be defined as a bigraded Hilbert series of a module associated to the symmetric group S_n. We generalize this construction to (finite) complex reflection groups and exhibit some nice conjectured algebraic and combinatorial properties of these polynomials in q and t. Finally, we present an idea how these polynomials could be related to some graded Hilbert series of modules arising in the context of rational Cherednik algebras. This is work in progress.

For the entire collection see [Zbl 1173.05001].

MSC:

05E15 Combinatorial aspects of groups and algebras (MSC2010)
20F55 Reflection and Coxeter groups (group-theoretic aspects)

Keywords:

q, t-Catalan numbers; reflection group; Shi arrangement; coinvariant ring; rational Cherednik algebras

Full Text: Link