

Workshop on Interactions Between
Algebraic Combinatorics and Algebraic Geometry
May 28 - June 1, 2007

On the H polynomials of reductive monoids

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Abstract

In this article, we introduce a q, t -analogue of the H -polynomial of a reductive algebraic monoid which is due to Lex Renner. We present a method for computing $(q, t) - H$ polynomials and investigate its combinatorial ramifications. Using certain subvarieties of the space of $n \times n$ -matrices, we show that the q -rook polynomials (of Garsia and Remmel) can be obtained from this modified H polynomials.

This is a joint work with Lex Renner.