

Queen's Algebraic Geometry — Seminar —

EULERIAN NUMBERS AND LAURENT POLYNOMIALS

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Abstract

Duistermaat and van der Kallen prove that there are no nontrivial Laurent polynomials all of whose powers have a zero constant term. Motivated by this result, Sturmfels asks for an effective version: Can we enumerate the Laurent polynomials that have the longest possible sequence of powers with zero constant terms? In this talk, we'll show that the attractively simple answer is given by the Eulerian numbers. The proof involves reinterpreting the problem in terms of toric geometry.

Monday 1 November 2010
16:30 – 17:30
319 Jeffery Hall