

Queen's Algebraic Geometry — Seminar —

LOG-CONCAVITY OF ASYMPTOTIC HILBERT SERIES

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Abstract

We study the linear map sending the numerator of the multigraded Hilbert series of a module to that of its r -th Veronese submodule. We show that the limit as r tends to infinity exists and depends on the multidegree of the module and the underlying positively multigraded polynomial ring. We also give a polyhedral description for the limiting polynomial and prove that the coefficients are log-concave.

Monday 12 September 2011
16:30 – 17:30
319 Jeffery Hall