Εβδομαδιαίο Σεμινάριο

The Hibi-Ohsugi conjecture for IDP Gorenstein Lattice Polytopes

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A lattice polytope P is a convex polytope whose vertices all have integer coordinates. Given a field k there is an associated commutative graded k-algebra k[P]. The polytope is called Gorenstein if k[P] is Gorenstein and IDP if for all positive integers k every point with integer coordinates of the dilation polytope kP is a sum of k points of P with integer coordinates. Counting the number of points with integer coordinates of kP for all positive integers k leads to the notion of the h*-vector of P. In 2006 Hibi and Ohsugi conjectured that the h*-vector of an IDP Gorenstein lattice polytope is unimodal, which means that it never strictly increases after the first time it strictly decreases. The aim of the talk is to discuss a recent proof of the conjecture which is a joint work with Karim Adiprasito, Vasiliki Petrotou and Johanna Steinmeyer.

Τετάρτη 18 Οκτωβρίου 2023, Αίθουσα 201α, 18:00

Μετά την ομιλία ακολουθεί καφές και συζήτηση στο εντευκτήριο του Τμήματος.