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8/ 7 [Johannes Hofscheier] Cohomology rings of toric bundles

The celebrated BKK theorem expresses the number of roots of a system of generic Laurent polynomials in terms of the mixed volume of the corresponding system of Newton polytopes. Pukhlikov and Khovanskii noticed that the cohomology ring of smooth projective toric varieties can be computed via this theorem. In this talk, I will report on joint work with Khovanskii and Monin where we extend this description to toric bundles. Our approach relies on a generalisation of the BKK theorem and a description of graded-commutative algebras which satisfy Poincaré duality. We conclude the presentation with some computations of cohomology rings.