Section 11: Complex Analysis | Poster number 642

On the middle-dimension homology group and the Stein property of the quasitoric manifolds

Oksana Znamenskaya, Krasnoyarsk State University, Russia.

ABSTRACT

Let us define *the quasitoric variety* as the difference of two algebraic subvarieties in simplicial complex toric variety X. It is investigated the connection between the $(n-1)$-dimension homology group for the nonsingular hypersurface $V \subset X$ and the n-dimension homology group for the quasitoric manifolds of the form $X \setminus V$. The classic result of Griffiths on the middle-dimension homology group for the complement of the nonsingular hypersurface in$n$-dimensional projective space is generalized assuming the Stein property of $X \setminus V$. The conditions for the Stein property of $X \setminus V$ are studied.

Keywords: *quasitoric manifolds, homology, Stein manifold, hypersurface*

Mathematics Subject Classification: *32A*

Contact Address: `oksana@math.kgu.krasnoyarsk.su`