THE UNIVERSITY OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

GEOMETRY SEMINAR

A boundedness result on the rational equivalences of zero cycles of algebraic surfaces with trivial Chow groups

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Abstract

Let S be a complex smooth projective surface with trivial CH_0. That is, for any two points p, $q \in S$, there exists a finite number of pairs (C_i, ϕ_i), where ϕ_i is a nonzero rational function over C_i, such that $p - q = \Sigma_i \operatorname{div}(\phi_i)$ (the equality is being understood in the abelian group $Z_0(S)$). Certainly, rational equivalences between two points are generally not unique. However, we can show that for any two points, there exists a rational equivalence in which the number and the arithmetic genera of C_i and degrees ϕ_i are uniformly bounded. This is a joint work with Mingwei Zhang and Shunichi Kimura.

Date:	December 17, 2015 (Thursday)
Time:	4:00 – 5:00pm
Place:	Room 210, Run Run Shaw Bldg., HKU

All are welcome