



复旦大学数学科学学院 数学综合报告会

报告题目: **On the K_2 of certain families of curves**

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报告时间: 2017-04-10 星期一 10:00-11:00

报告地点: 光华东主楼 1704

摘要: The celebrated Beilinson's conjecture establishes very far reaching relations between algebraic K-theory and L-function of projective algebraic variety. In the case of K_2 of algebraic curves over \mathbb{Q} , Beilinson's conjecture on one hand predicts the rank of the integral K_2 group of algebraic curves equals the genus g , on the other hand predicts the special value of the L-function $L(C; 2)$ equals the regulator multiplied by some simple factors and a non-zero rational number. In this talk, we construct families of smooth, proper, algebraic curves in characteristic 0 of arbitrary genus g together with g elements in the kernel of the tame symbol. We show that those elements are in general independent by a limit calculation of the regulator. Working over a number field, we show that in some of those families the elements are integral...

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