SCMS Seminar

DIVERSITY IN PARAMETRIC FAMILIES OF NUMBER FIELDS

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Time: 10:00-11:00 am., Fri, March 3, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Abstract: Let X be a projective curve over Q and t a non-constant Q-rational function of degree >1. For every integer n pick a point P_n on X such that t(P_n)=1. An old result of Dvornicich and Zannier implies that, for large n, among the number fields Q(P_1), ... ,Q(P_n) there are at least cn/\log n distinct, where c is a positive number (not depending on n). We prove that there are at least cn/ (\log n)^{1-e} distinct fields, where e>0 depends only on the degree of t and the genus of X. A joint work with Florian Luca.

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