

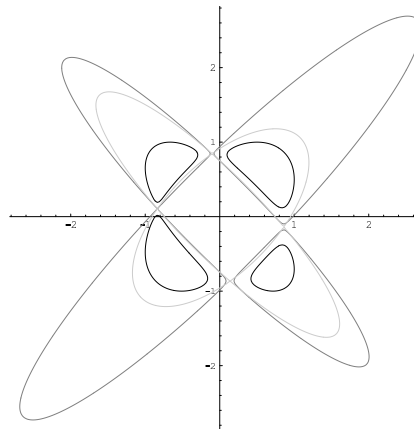
# Stanford Algebraic Geometry — Seminar —

## FORMULAS FOR THE ARITHMETIC GEOMETRIC MEAN OF CURVES OF GENUS 3

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### Abstract

The arithmetic geometric mean algorithm for calculation of elliptic integrals of the first type was introduced by Gauss. The analog algorithm for Abelian integrals of genus 2 was introduced by Richelot (1837) and Humbert (1901). We present the analogous algorithm for Abelian integrals of genus 3. (This is joint work with Christophe Ritzenthaler, math.AG/0403182.)



Friday, May 28  
3:15 p.m.  
Room 383-N

<http://math.stanford.edu/~vakil/seminar0304/>