West Coast Number Theory Conference December 16—20, 2007

MONDAY

Algebraic Number Theory Session - Helen Grundman

- 9:00 Leanne Robertson Monogeneity in cyclotomic fields
- 9:20 Leon McCulloh Stickelberger evolution (a new branch)
- 9:40 Vinod Radhakrishivan Galois representations attached to elliptic curves
- 10:00 Patrick Rault On uniform bounds for rational points on rational curves and thin sets

10:20 Announcements/BREAK

- 10:50 Darrin Doud Local corrections of discriminant bounds and small degree extentions of quadratic fields
- 11:10 Jeff Achter Permutation polynomials and exceptional covers
- 11:30 Rachel Pries Absolutely simple Jacobians of given genus and p-rank

12:00 LUNCH

Elementary Number Theory Session – Doug Iannucci

- 1:30 Jasbir Chahal A fake zeta function
- 1:50 Helen Grundman Semihappy numbers
- 2:10 Pante Stanica Sums of Thue-Morse sequences over arithmetic progressions
- 2:30 Carrie Finch On the irreducibility of polynomials which are sums of polynomials with distinct cyclotomic factors

2:50 BREAK

- 3:20 Doug Iannucci Catalan numbers, factorials, and sums of aliquot parts
- 3:40 Florian Luca Variants of Sierpinski numbers
- 4:10 Sam Wagstaff Congruences for sums of squares

4:30 FIRST PROBLEM SESSION – Gerry Myerson

6:00 DINNER

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TUESDAY

Analytic Number Theory Session – Gary Walsh

9:00 Gerry Myerson Trifectas in geometric progression
9:20 Wendell Ressler Hecke groups and reduction of a λ-binary quadratic forms
9:40 David Cardon On a conjecture related to the sum of the Möbius function
10:00 Xian-Jin Li On the Euler product of some zeta functions

10:20 Announcements/BREAK

Miscellaneous Session—Gary Walsh

10:50 Geoffrey Apel Proving certain identities using modular forms
11:10 Michael Knapp Homogeneous equations over p-adic fields
11:30 Gary Walsh Arithmetical Properties of a sequence of integers associated to a family of simultaneous Pell equations

12:00 LUNCH

AFTERNOON EXCURSIONS

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WEDNESDAY--REVISED

Computational Number Theory Session – Andrew Shallue

9:00 Eric Landquist Class number computation in cubic function fields
9:20 Pieter Rozenhart The Davenport-Heilbroun theorem and binary cubic forms
9:40 Alan Silvester Principle ideal testing (in real quadratic fields)
10:00 Adrian Tang Computing fundamental unit of function fields of unit rank one

10:20 Announcements/BREAK

10:50 Eric Roettger A cubic extension of the Lucas functions 11:10 Kjell Wooding Current techniques in sieve design 11:30 Jonathan Webster Cubic function fields in Char(k)=3

12:00 LUNCH

(Computational Con't.)

- 1:30 Qingquan Wu Integral bases and signatures of radical function fields
- 1:50 Peter Montgomery *Improved p±1 stage 2*
- 2:10 David Bailey Experimental math, number theory and mathematical physics
- 2:30 Matthew Musson The elliptic curve discrete logarithm problem and the GHS attack

2:50 BREAK

Miscellaneous Session - John Burke

- 3:20 Bill Rowan Sketch of an abelian category for abelian topological groups
- 3:40 David Moulton Averaging points two at a time
- 4:10 Alain Togbe On the positive integral solutions of the Diophantine equation

$$X^3 + by + 1 - xyz = 0$$

4:30 Andrew Shallue Fixed weight subset sum problem

4:50 Business Meeting and 2ND Problem Session

6:00 DINNER

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THURSDAY

Historical Session –

7:30 Pick up box lunches (if ordered) at breakfast

9:00 Informal discussion of past conferences and problems

Break—delivered at 9:30.

11:30 Farewell and check out

12:00 LUNCH