

Quebec-Vermont Number Theory Seminar (1984-1992)

Fall 1984

- Sept. 20 **D. Dummit** *An Introduction to Elliptic Curves as Modular Curves I*
D. Dummit *Elliptic Curves as Modular Curves II*
- Oct. 4 **H. Kisilevsky** *Some Remarks on Friedman's Theorem in Iwasawa Theory*
D. Dummit *An Introduction to Modular Symbols*
- Oct. 8 **D. Goss (Ohio State)** *Arithmetic of Function Fields I*
D. Goss (Ohio State) *Arithmetic of Function Fields II*
- Oct. 11 **D. Goss** *Arithmetic of Function Fields III*
D. Goss *Arithmetic of Function Fields IV*
- Oct. 25 **K. Murty** $\tau(n) = a$ has finitely many solutions for odd a
D. Dummit *Modular Symbols and the p -adic L -function of an Elliptic Curve*
- Nov. 8 **L. Simons** *Hecke Operators on $\Gamma_0(N)$ -the Atkin-Lehner Theory*
J. Tunnell (Rutgers Univ.) *Hilbert Modular Forms of Weight 1*
- Nov. 15 **R. Foote** *Hecke Algebras*
K. Murty *Decomposing the Jacobian of $X_0(N)$ using the Hecke Algebra*
- Nov. 29 **R. Foote** *Hecke Algebras and the Langlands Theory*
K. Murty *Outline of Ribet's Converse of the Kummer Criterion*
- Dec. 13 **D. Dummit** *Serre's mod p modular forms*
D. Dummit *p -adic Modular Forms and Construction of the Kubota-Leopoldt L -series*

Spring 1985

- Jan. 17 **D. Dorman** *Singular Values of the Elliptic Modular Function and Factorization Formulas*
D. Dummit *Reduction of Elliptic Curves and Tate Curves*

- Jan. 24 **K. Murty** *Points of order 13 apres Mazur and Tate, I*
R. Coleman (U.C. Berkeley) *Effective Chabauty*
- Feb. 7 **D. Dummit** *Neron Models and Tate Curves*
K. Murty *Points of Order 13, II*
- Feb. 14 **K. Murty** *On Computing Root Numbers*
D. Dummit *Tate Curves and Mestre's Construction of Class Groups in Imaginary Quadratic Fields using Elliptic Curves*
- Mar. 7 **H. Kisilevsky** *The Iwasawa Component in Mazur-Wiles*
L. Simons *Construction of the p -adic L -series for an Elliptic Curve*
- Mar. 14 **D. Ramakrishnan (Johns Hopkins)** *Algebraic Cycles and Values of L -functions I* ■
D. Ramakrishnan (Johns Hopkins) *Algebraic Cycles and Values of L -functions II* ■
- Mar. 28 **D. Dummit** *Descent on Elliptic Curves, I*
J. Friedlander (Univ. of Toronto) *Primes in Arithmetic Progressions*
- Apr. 4 **D. Dummit** *Descent on Elliptic Curves, II - Translating Tate's Haverford Notes*
N. Yui (Univ. of Toronto) *The Brauer Group of a Product of Two Curves*
- Apr. 11 **J. Arthur (Univ. of Toronto)** *Automorphic Representations and Number Theory*
D. Dorman *Heights on Abelian Varieties*
- Apr. 18 **K. Murty** *The Euclidean Algorithm for S -integers I*
K. Murty *The Euclidean Algorithm for S -integers II*
- Apr. 25 **G. Anderson (U.C. Berkeley)** *On Gauss Sums*
G. Anderson *Hilbert-Blumenthal Drinfeld Modules*
- May 9 **R. Murty** *Recent Results on the First Case of Fermat's Last Theorem*
J. Sands (Univ. of Maine, Orono) *Stark's Conjecture and Higher Order Zeroes of L -functions at 0*
- May 16 **D. Blasius (Columbia)** *Motives for Absolute Hodge Cycles*
D. Blasius *Reciprocity Laws for Critical Values of L -functions*
- May 23 **R. Murty** *Recent Results of Rohrlich on Values of L -functions*
K. Murty *Non-degenerate CM types*
D. Dorman *Heights, II - the local components*

Fall 1985

- Sept. 12 **D. Dummit** *Tate's Formulation of Stark's Conjecture and the Proof in the Function Field Case*
S. Natarajan *Lower Bounds for the Coefficients of Ramanujan's τ -function*
- Sept. 19 **C. Pomerance** *Counting Finite Groups*
- Sept. 26 **R. Murty** *Integer Points on Curves of Genus 1*
J. Teitelbaum (Harvard Univ.) *p -adic L -functions and Periods of Mumford-Schottky Curves*
- Oct. 10 **R. Murty** *Recent Progress on Artin's Conjecture*
J. Labute *The Nilpotent Completion of the Fundamental Group of Smooth Complex Affine Varieties*
- Oct. 24 **D. Dummit** *The Brumer-Stark Conjecture (cont.)*
R. Murty *Some Remarks on an Improvement in the Chebotarov Density Theorem*
- Nov. 1 **M. Waldschmidt (Institute for Advanced Study)** *Large Transcendence Degrees*
- Nov. 7 **H. Kisilevsky** *The Cohen-Lenstra Heuristic*
R. Yager (Oklahoma State) *Tate Constants for Elliptic Curves*
- Nov. 21 **R. Murty** *Improvements in the Chebotarov Density Theorem*
W. Sinnott (Ohio State Univ.) *On a Theorem of Washington*
- Dec. 6 **J.P. Serre (College de France / Harvard Univ.)** *Topics on l -adic Representations*
J.P. Serre (College de France / Harvard Univ.) *Weil + ϵ Implies Fermat*

Spring 1986

- Jan. 16 **K. Murty** *Modular Forms and the Tchebotarev Theorem*
M. Waldschmidt *Diophantine Equations and Transcendence Methods*
- Jan. 30 **K. Murty** *Tate's Conjecture for Hilbert Modular Surfaces*
R. Murty *Vaughan's Proof of Bombieri's Theorem*
- Feb. 13 **H. Kisilevsky** *p -adic L -functions*
K. Murty *An Overview of Shimura Curves*
- Feb. 27 **J. Sands (Ohio State, U. of Maine)** *The Brumer-Stark Conjecture for Abelian Fields*

B. Mazur (Harvard Univ.) *Deforming Galois Groups over \mathbb{Q}*

Mar. 13 **S. Lang (Yale Univ.)** *Diophantine Geometry and Algebraic Number Theory
(Heights and Nevanlinna Theory)*

S. Lang (Yale Univ.) *Diophantine Geometry and Hyperbolic Geometry*

Mar. 27 **D. Dummit** *Leopoldt's Conjecture and Stark's Conjecture*

K. Murty *A Variant of a Theorem of Bombieri-Vinogradov*

Apr. 17 **K. Murty** *Holomorphy of Artin L-series*

S. Natarajan *Diophantine Approximation on Algebraic Groups*

May 1 **D. Dummit** *Serre's Result on the Residue of the p-adic zeta function at $s = 1$*

H. Kisilevsky *Circular Units, Elliptic Units, and p-adic L-functions*

May 15 **R. Langlands (Institute for Advanced Study)** *Endoscopy and Transfer*

J. Oesterle (Paris VI / Harvard) *Supersingular Curves and Modular Curves*

Fall 1986

Sept. 11 **H. Kisilevsky** *\mathbb{Z}_p -Extensions of Function Fields*

R. Murty *The Phragmen-Lindelof Theorem and Applications*

Sept. 25 **R. Murty** *The Phragmen-Lindelof Theorem and Applications II*

J. Sands *Iwasawa's Approach to Leopoldt's Conjecture*

Oct. 9 **H. Kisilevsky** *\mathbb{Z}_p -Extensions of Function Fields II*

R. Murty *Stark's Method for Lower Bounds for Discriminants*

Oct. 23 **L. Simons** *Galois Structure of the Hilbert Symbol in Tamely Ramified Abelian
2-adic Extensions*

A. Odlyzko (Bell Labs) *New Analytic Algorithms in Number Theory*

Nov. 6 **D. Dummit** *On Results of Thaine and of Greenberg*

R. Foote *Spherical Functions*

Nov. 21 **K. Rubin (Ohio State / MSRI)** *CM Elliptic Curves and the Shafarevich-Tate
Conjecture*

Dec. 4 **H. Iwaniec Rutgers Univ.)** *Fourier Coefficients of Modular Forms of Half
Integral Weight*

D. Dorman *Elkies' Proof of the Infinitude of Supersingular Primes for Elliptic
Curves over \mathbb{Q}*

Dec. 15 **D. Dummit** *Greenberg's Partial Converse to Coates and Wiles II*

J. Sands *Leopoldt's Conjecture in Families of Fields*

Spring 1987

- Feb. 12 **K. Murty** *Abelian Varieties with Complex Multiplication*
H. Kisilevsky *Selmer Groups*
- Feb. 19 **R. Foote** *Lusztig-Deligne Representations of Finite Chevalley Groups*
D. Dummit *Principal Homogeneous Spaces*
- Feb. 26 **D. Dummit** *Selmer Groups*
- Mar. 5 **H. Kisilevsky** *Selmer Groups*
- Mar. 12 **J. Sands** *The p-adic Artin Conjecture*
U. Jannsen (MSRI) *l-adic Cohomology of Abelian Varieties and Galois Cohomology of Algebraic Number Fields*
- Apr. 2 **S. Lang (Yale Univ.)** *Vojta's Conjecture*
S. Lang (Yale Univ.) *New Insights into Fermat's Last Theorem*
- Apr. 9 **G. van der Geer (I.A.S.)** *The Arithmetic of Hilbert Modular Surfaces*
G. van der Geer (I.A.S.) *The Geometry of Hilbert Modular Surfaces*
- May 14 **D. Dummit** *The Tate Transfer*
M. Rosen (Brown Univ.) *Some Relations between Mathematical Invariants*
- July 21 **R. Greenberg (Univ. of Wash./MSRI)** *Ranks of Elliptic Curves in \mathbb{Z}_p -extensions I*
R. Greenberg (Univ. of Wash./MSRI) *Ranks of Elliptic Curves in \mathbb{Z}_p -extensions II*
- July 23 **R. Greenberg (Univ. of Wash./MSRI)** *Iwasawa Modules and p-adic L-functions I*
R. Greenberg (Univ. of Wash./MSRI) *Iwasawa Modules and p-adic L-functions II*
- Aug. 20 **G. Stevens (Boston Univ.)** *A cohomological approach to congruences between modular forms I*
G. Stevens (Boston Univ.) *A cohomological approach to congruences between modular forms II*

Fall 1987

- Sept. 10 **R. Murty** *Supersingular Elliptic Curves*
S. Ramanan (Tata Institute) *Embeddings of Abelian Surfaces*
- Sept. 24 **D. Dummit** *The Arithmetic of Fermat Curves I*
J. Sands *The Ferrero-Washington Trick*
- Oct. 8 **D. Dummit** *The Arithmetic of Fermat Curves II*

H. Kisilevsky *Kida Formulas*

- Oct. 29 **R. Bedard (Univ. of Ottawa)** *Hecke Algebras*
G. Anderson (Univ. of MN / Institute for Advanced Study) *p-torsion in level l^n Fermat Jacobians*
- Nov. 12 **R. Casselman (Univ. of British Columbia)** *Kottwitz's Theorem on Tamagawa Numbers I*
R. Casselman *Kottwitz's Theorem on Tamagawa Numbers II*
- Dec. 3 **R. Murty** *Primality Testing and Elliptic Pseudoprimes*
R. Foote *Non-monomial Characters and the Artin Conjecture*

Spring 1988

- Jan. 21 **G. Stevens (Boston Univ.)** *Kloosterman Sums and Poincare Series for $GL(n)$ I*
G. Stevens (Boston Univ.) *Kloosterman Sums and Poincare Series for $GL(n)$ II*
- Feb. 4 **D. Dummit** *Arithmetic of Fermat Curves III - CM and periods*
R. Murty *Remarks on Elliptic Curves*
- Feb. 18 **D. Dummit** *Mestre's Construction of Imaginary Quadratic Fields with non-trivial 5- and 7-ranks using Elliptic Curves*
R. Friedlander (Univ. of Toronto) *Primes in Arithmetic Progressions*
- Mar. 3 **K. Rubin (Ohio State / Columbia)** *The Main Conjecture for Imaginary Quadratic Fields I*
K. Rubin *The Main Conjecture for Imaginary Quadratic Fields II*
- Mar. 17 **R. Greenberg (Univ. of Washington)** *Remarks on Ramanujan's τ -function*
K. Murty (Univ. of Toronto) *The Manin-Drinfeld Theorem and the Ramanujan τ -function*
- Mar. 24 **S. Lang (Yale Univ.)** *Open Questions in Classical Nevanlinna Theory*
D. Rohrlich (Rutgers Univ.) *Non-vanishing of L-functions*
S. Lang *Higher Dimensional Nevanlinna Theory*
- Mar. 31 **G. Prasad** *Recent Work of Margulis on Davenport's Conjecture*
D. Ford *The Number Theory Computation Software ALGEB*
- Apr. 14 **L. Washington (Univ. of Maryland)** *Real Subfields of Cyclotomic Fields with Large Class Numbers*
J. Sonn (Yale Univ.) *Realizing Double Covers of S_n, A_n as Galois Groups over Number Field*
- Apr. 28 **D. Dorman** *Introduction to the Arithmetic of Drinfeld Modules*
J. Labute *Wingberg's Characterization of Demuskin Groups*

- May. 5 **A. Wiles (Princeton Univ.)** *Arithmetic of Totally Real Fields*
A. Wiles (Princeton Univ.) *p-adic Representations for Totally Real Fields*
- May. 12 **B. Gross (Harvard Univ.)** *Serre's Conjectures on Modular Representations I*
B. Gross (Harvard Univ.) *Serre's Conjectures on Modular Representations II*
- May. 19 **E. Gekeler (I.A.S. / Max Planck Institute)** *DeRham Cohomology for Drinfeld Modules*
K. Murty (University of Toronto) *Zeros of Dirichlet L-functions*
- July 7 **J. Manin** *Points of Bounded Height on Abelian Varieties I*
J. Manin *Points of Bounded Height on Abelian Varieties II*
- July 22 **Odoni** *Weil Numbers and CM Fields*
R. Murty *Non-vanishing of Derivatives of L-functions*
- July 30 **W. Sinnott (Ohio State University)** *Computing μ -invariants for Arbitrary CM Fields*

Fall 1988

- Sept. 22 **R. Murty** *Non-vanishing of L-series*
Rajiv Gupta (Univ. of British Columbia) *Division Fields of CM Elliptic Curves*
- Oct. 6 **R. Murty** *Modular Forms and the Splitting of Polynomials mod p*
M. Emsalem (Paris VII) *Travaux de Michel Laurent*
- Oct. 20 **D. Dummit** *Some Remarks on Imaginary Quadratic Fields*
R. Murty *Kolyvagin's Proof of the Finiteness of the Tate-Shafarevich Group*
- Nov. 3 **K. Rubin (Columbia Univ.)** *Travaux de Kolyvagin I (Proof of the Main Conjectures)*
K. Rubin (Columbia Univ.) *Travaux de Kolyvagin II*
- Nov. 10 **H. Stark (M.I.T.)** *p-adic Dirichlet Series*
K. Murty (Univ. of Toronto) *Kolyvagin's Analytic Hypothesis*
- Dec. 8 **H. Kisilevsky** *Travaux de Rubin et Kolyvagin I*
D. Hayes (U. Mass Amherst) *Are Hecke Characters Implicit in the Brumer-Stark Conjecture?*

Spring 1989

- Jan. 19 **H. Kisilevsky** *Travaux de Rubin et Kolyvagin II*
J. Sands *Arithmetic of Non-Maximal Orders*

- Jan. 26 **H. Kisilevsky** *Travaux de Rubin et Kolyvagin III*
J. Pila *Frobenius Maps and Abelian Varieties*
- Feb. 9 **R. Murty** *Average Values of L-series*
D. Dummit *A Result of Hayes on Hecke Characters in Function Fields I*
- Mar. 2 **S. Lang (Yale University)** *The abc Conjecture*
D. Dummit *A Result of Hayes on Hecke Characters in Function Fields II*
- Mar. 16 **R. Gupta** *Dividing Rational Points on Elliptic Curves*
F. Thaine (Institute for Advanced Study) *The Orders of Ideal Class Groups in Prime Cyclotomic Fields*
- Mar. 30 **H. Darmon (Harvard University)** *Galois Groups over $\mathbb{Q}(t)$*
J. Minac (Univ. of W. Ontario) *Witt Rings and Galois Groups*
- Apr. 20 **D. Thakur** *title to be announced*
title to be announced

Fall 1989

- Sept. 14 **R. Murty** *Supersingular Primes*
J. Sands *Vanishing of the Iwasawa μ -invariant*
- Oct. 6 **J. Sands** *Vanishing of the Iwasawa μ -invariant II*
H. Kisilevsky *p -adic Limits of Class Numbers*
- Oct. 19 **R. Gupta (Univ. of British Columbia)** *Genera of Elliptic Division Polynomials*
R. Murty *Recent work on the Density Hypothesis*
- Nov. 2 **D. Dummit** *Formal Groups attached to Elliptic Curves*
H. Williams (University of Manitoba) *Shanks' CUFFQI Algorithm*
- Nov. 16 **F. Thaine** *Relations between Units and Jacobi Sums in Prime Cyclotomic Fields*
J. Top (Queens University) *Detecting Algebraic Cycles by Reducing Mod p*
- Nov. 30 **N. Elkies (Harvard University)** *Elliptic Curves and Lattices I*
N. Elkies (Harvard University) *Elliptic Curves and Lattices II*
- Dec. 14 **J. Buchmann (Saarbrücken)** *Factorization Algorithms using Number Fields*
J. Sands *Travaux de Kolyvagin à la Rubin*

Spring 1990

- Jan. 11 **M. Kuwata (Brown University)** *Diophantine Problems on Elliptic Surfaces*
H. Darmon (Harvard University) *Heegner points and a Theorem of Birch-Swinnerton-Dyer Type*

- Jan. 18 **F. Oort (Utrecht University)** *Lifting Abelian Varieties from characteristic p*
J. Top (Queens University)
- Jan. 25 **K. Rubin (Ohio State University)** *The Main Conjectures I*
K. Rubin (Ohio State University) *The Main Conjectures II*
- Feb. 8 **J. Sands** *Travaux de Kolyvagin à la Rubin II*
R. Murty *The Sato–Tate Conjecture I*
- Feb. 15 **R. Murty** *The Sato–Tate Conjecture II*
F. Thaine *Relations between Units and Jacobi Sums in Prime Cyclotomic Fields II*
- Mar. 1 **F. Gouvea (Harvard University)** *The Square–Free Sieve and Ranks of Elliptic Curves*
A. Silverberg (Ohio State University) *Adelic Representations and Canonical Models—A Variant of the Isogeny Theorem*
- Mar. 15 **E. Friedman (Penn. State)** *Regulators of Number Fields*
W. Tautz (Queens University) *Supersingular Abelian Varieties*
- Mar. 22 **L. Washington (University of Maryland)** *Quartic Fields and Modular Curves*
J. Sands *Iwasawa Invariants over Imaginary Quadratic Fields*
- Apr. 5 **P. Garrett (University of Minnesota)** *Arithmetic of Automorphic Forms and L -functions I*
P. Garrett (University of Minnesota) *Arithmetic of Automorphic Forms and L -functions II*
- Apr. 12 **D. Dorman** *A Factorization Formula for Singular Moduli of Drinfeld Modules*
D. Dorman *Topics in Elliptic Curves*
- Apr. 26 **B. Mazur (Harvard University)** *Uniform Bounds on Torsion on Elliptic Curves*
G. Anderson (University of Minnesota) *Selberg Sums and Integrals*
- June 28 **D. Hayes (UMass. Amherst)** *Stark’s Conjecture and Kolyvagin Euler Systems*
H. Kisilevsky *Semisimplicity in \mathbb{Z}_p -extensions*

Fall 1990

- Sept. 20 **R. Borcherds (Cambridge University)** *Moonshine and Modular Forms*
J. Cremona (Exeter University) *Modular Symbols and Computation of Elliptic Curves*
- Oct. 4 **H. Koch (E. Berlin)** *Integral Positive Definite Unimodular Lattices*
J. Labute (McGill) *Lie Algebras and Central Series of Groups*

- Oct. 11 **J. Cremona (Exeter University)** *Modular and Elliptic Curves over Imaginary Quadratic Fields*
F. Destremps (CRM) *Factorizability, Grothendieck Groups and Galois Module Structure*
- Oct. 18 **A. Parshin (Moscow)** *Inequalities in Arithmetic Surfaces*
H. Kisilevsky (Concordia) *Independence in Function Fields*
- Nov. 1 **H. Koch (Berlin)** *Local Definition of Local Galois ϵ -Factors*
N. Stephens (Cardiff) *Integral Points on Elliptic Curves*
- Nov. 8 **J.F. Mestre (Paris VI)** *Hyperelliptic Curves with Real Multiplications*
J.F. Mestre (Paris VI) *Regular extensions of $Q(t)$ with Galois Group \tilde{A}_n*
- Nov. 22 **A. Parshin (Moscow)** *Diophantine Algebraic Geometry*
H. Darmon (Harvard) *Refined Class Number Formulas for Derivatives of L -series*
- Nov. 29 **F. Oort (Princeton)** *Newton Polygons Stratify Moduli Space*
R. Greenberg (Boston University) *Proof of the Mazur-Tate-Teitelbaum Conjecture*
- Dec. 13 **F. Destremps (CRM)** *Sen's Theorem Classifying p -adic Fields*
J. Sands (University of Vermont) *Semisimplicity of Iwasawa Modules*

Spring 1991

- Jan. 10 **F. Gouvea (Queen's University)** *The Slope Decomposition of Spaces of Modular Forms*
D. Dummit (University of Vermont) *Conductors of CM Elliptic Curves*
- Jan. 31 **K. Rubin (Harvard)** *Stark/Heegner points on Elliptic Curves with Complex Multiplication I*
K. Rubin (Harvard) *Stark/Heegner points on Elliptic Curves with Complex Multiplication II*
- Feb. 21 **K. Murty (University of Toronto)** *Quaternionic Shimura Surfaces*
K. Murty (University of Toronto) *Non-vanishing Theorems for L -Functions*
- Feb. 28 **F. Shahidi (Purdue University)** *Exterior Square L -Functions*
R. Murty (McGill) *Selberg's Conjecture on L -Functions*
- Mar. 7 **H. Zimmer (Saarbruecken)** *Torsion Groups of Elliptic Curves Over Fields of Small Degree*
B. Singh (Tata Institute) *Some Cases of Makai's Conjecture*
- Mar. 14 **S. Lang (Yale University)** *The Special Set of a Projective Variety*
S. Lang (Yale University) *The Error Term for Nevanlinna Theory in Coverings*

- Apr. 4 **A. Selberg (Princeton)** *Old and New Conjectures about a class of Dirichlet Series*
C. Stewart (Waterloo) *Polynomial Congruences, Thue Equations, and the Rank of Elliptic Curves*
- Apr. 18 **T. Zink (University of Toronto)** *p-adic Uniformization*
M. Rosen (Brown University) *Automorphisms of Function Fields*
- Apr. 25 **D. Dummit (University of Vermont)** *On Rubin's Special Units*
R. Murty (McGill) *Le Programme de Langlands*
- May 9 **F. Destremps (CRM)** *A Generalization of a Theorem of Sen on Extensions of p-adic Fields*
R. Murty (McGill) *Converse Theory for $GL(1)$*

Fall 1991

- Aug. 15 **Y. Tschinkel (MIT)** *Impressions from Seattle: Motives, L-Functions, etc.*
D. Ramakrishnan (Caltech) *The Tate Conjecture for Quaternionic Shimura Surfaces*
- Aug. 29 **M. Waldschmidt (Institut Poincarre)** *Logarithms of Algebraic Points on Algebraic Groups*
- Sept. 5 **Y. Zarhin (Moscow)** *Tate Conjecture for Abelian Varieties Over Finite Fields with Certain Newton Polygons*
L. Mai (CRM) *Average Ranks of Certain Elliptic Curves (d'après Fouvry)*
- Sept. 19 **J. Im (CRM)** *Special Values of Symmetric Square L-Functions*
K. Murty (University of Toronto) *Langland's Recipe for r*
- Sept. 26 **I. Connell (McGill)** *Good Reduction of Elliptic Curves in Abelian Extensions*
D. Dummit (University of Vermont) *Hecke Characters of CM Elliptic Curves*
- Oct. 10 **K. Murty (University of Toronto)** *Hodge Conjecture for Abelian Varieties*
D. Dorman (Middlebury College) *What is the Analogue of Gross Zagier in Function Fields?*
- Oct. 17 **D. Goss (Ohio State University)** *Arithmetics in Function Fields*
D. Prasad (Tata Institute) *Restriction of an $SO(n)$ Representation to $SO(n-1)$*
- Nov. 7 **K. Murty (visiting McGill/CRM)** *On the Hodge Conjectures*
D. Roy (Concordia/McGill) *Simultaneous Approximation in Number Fields*
- Nov. 21 **R. Murty (McGill)** *Estimating Eigenvalues of Hecke Operators (after Duke & Iwaniec)*
H. Kisilevsky (Concordia) *Abelian Galois Groups over $\mathbb{Q}(T)$*

- Dec. 17 **J. Oesterle (Paris VI visiting Columbia)** *On the Number of Solutions of Equations mod p^n*
J. Oesterle (Paris VI visiting Columbia) *Elliptic Curves with Isomorphic p -torsion*

Spring 1992

- Jan. 23 **P. Ribenboim (Queen's University)** *Squares in Lucas Sequences*
R. Murty (McGill) *Brun's Sieve*
- Feb. 13 **M. Kuwata (McGill)** *Elliptic Pencils on $K3$ Surfaces with Large Picard Number*
D. Dummit (University of Vermont) *Computing the Drinfeld Module for Hyperelliptic Curves*
- Mar. 5 **B. Berndt (University of Illinois)** *Ramanujan's Notebooks I*
B. Berndt (University of Illinois) *Ramanujan's Notebooks II*
- Mar. 12 **M. Olivier (Universite de Bordeaux)** *Enumerating Algebraic Number Fields and Computing their Galois Groups*
F. Diaz y Diaz (Universite de Bordeaux) *Computing Class Numbers using the Subexponential Algorithm*
- Mar. 19 **S. Lang (Yale University)** *The Heat Kernel and the Artin Formalism of L -Functions*
S. Lang (Yale University) *Degeneracy of the Spectrum of the Laplace Operator and Jorgenson's Proof of a Conjecture of Deligne*
- Apr. 9 **M.S. Raghunathan (Tata Institute)** *The Congruence Subgroup Problem*
R. Murty (McGill) *Euclidean Rings*