VITA FOR MICHAEL FILASETA

Address:

   Department of Mathematics
   University of South Carolina
   Columbia, SC 29208

E-mail: filaseta@math.sc.edu
URL: http://www.math.sc.edu/~filaseta/
Phone: (803) 777-6589 (Office)
            (803) 781-8203 (Home)

Education:

   Ph.D. University of Illinois at Champaign-Urbana (1984)
   B.A.   University of Arizona (1980)

Professional Experience:

   Full Professor, University of South Carolina (1995-present)
   Associate Professor, University of South Carolina (1989-1995)
   Assistant Professor, University of South Carolina (1984-1989)
   Teaching and Research Assistant, University of Illinois (1980-83)

Grants:

Duration	Agency	Type	Title & Amount
2002-2005	NSF	PI	*On the factorization of lacunary polynomials* (with Douglas Meade); $151,151
2000-2003	NSF	Co-PI	*SCREMS Proposal*; $44,741
1998-2000	NSA	PI	*Problems on the irreducibility of polynomials*; $44,763
1997-1999	NSA	PI	*Finite differences and irreducibility techniques in Analytic Number Theory*; $38,000
1994-1997	NSF	PI	*Finite difference techniques and irreducibility theorems in Analytic Number Theory*; $57,538
1994-1996	NSF	Co-PI	*Computational equipment for Algebra, Combinatorics, and Number Theory*; $24,011
1992-1994	NSA	PI	*Problems related to finite differences, fractional parts, and irreducibility*; $31,020
1989-1991	NSF	PI	*Gaps between k-free numbers, finite differences, and exponential sums*; $32,150

Other Awards:

   Mortar Board Excellence in Teaching Award, 1994
   The Distinguished Award of the Hardy-Ramanujan Society (with Ognian Trifonov), 1991
   USC Research and Productive Scholarship Grant (Univ. of S. Carolina, 1985-1986)
   University Fellowship (University of Illinois, 1980-1982)

This vita was last updated on 10/31/02 and was written in part for the process of post-tenure review at the University of South Carolina. Certain items are included here for the purpose of that review.

Former Doctoral Students:

Year	Name	Dissertation Title
2001	Martha Allen	*Generalizations of the irreducibility theorems of I. Schur*
2001	Angel Kumchev	*Diophantine problems involving prime numbers*
2000	Richard L. Williams	*The irreducibility of a certain class of Laguerre polynomials*
1996	Ikhalfani Solan	*Norms of factors of polynomials, an extension of a theorem of Ljunggren, and the distribution of k-free numbers*
1995	Brian D. Beasley	*The distribution of powerfree values of irreducible polynomials*

Former Masters Students:

Year	Name	Thesis Title
2001	Michael Williams	*Eisenstein's criterion applied to mth order Bernoulli polynomials of degree m*
1999	Martha Allen	*The irreducibility theorems of I. Schur*
1998	James Blair	*Determining the irreducibility of polynomials through the use of Newton polygons*
1997	Brian Hipp	*A variation on a theorem of Ljunggren*
1996	Gerald Baygents	*Reducibility criterion in polynomials with non-negative coefficients*
1995	Patrick Harley	*On a generalization of an irreducibility theorem of I. Schur*
1995	Shannon Smith	*An algorithm of Lenstra, Lenstra, and Lovasz*
1989	Roger Rosenthal	*Dirichlet's theorem for polynomials*
1989	Grace De Ramos	*Elementary approaches to a gap problem involving k-free numbers*
1989	Jacklyn Pitts	*On an irreducibility theorem of I. Schur*
1989	Angela Andrews	*On the density of irreducible polynomials with coefficients 0 and 1*
1988	Melonie Rodgers	*Problems and results on irreducible polynomials*
1987	Janis Alexander	*Irreducibility criteria for polynomials with non-negative coefficients*

Current Students:

Travis Kidd (Ph.D.), Carrie Finch (Ph.D.), Robert Murphy (M.S.), Manton Matthews (M.S.)

Memberships:

American Mathematical Society (AMS)
Mathematical Association of America (MAA)

Refereed for the Following:

Acta Arithmetica
Fibonacci Quarterly
Illinois Journal of Mathematics
International Journal of Mathematics and Mathematical Sciences
Journal of Graph Theory
Journal of Number Theory
Journal of Theoretical Biology
Mathematical Monthly
Mathematical Reports for the Canadian Academy of Sciences
Proceedings of the American Mathematical Society
Proceedings of the London Mathematical Society
Rocky Mountain Journal of Mathematics
SIAM Journal on Discrete Mathematics
Topology and Its Applications
Transactions of the American Mathematical Society
Mathematical Reviews
Springer-Verlag (CMS book series)
SPECTRUM Series of Books for the MAA
Proceedings of Conferences (from Canada, Cardiff, Illinois, & Poland)

Outside University Activities:

MSRI Summer Graduate Program (jointly with P. Borwein in 06/02)
Spectrum Editorial Board for the MAA (2001-present)
Collaborating Editor for the Problem Section of the Mathematical Monthly (1991-1997)
Grader for the William Lowell Putnam Competition (1996, 1997, 1999)
Member of the All-State High School Mathematics Selection Committee (1990-present)

Conference Organization:

Session of AMS Sectional Meeting in Columbia, SC, 2001 (with Trifonov)
South East Regional Meeting On Numbers, USC, 1999 (with Trifonov, Ford, & Hudson)
Session of AMS Sectional Meeting in DeKalb, Illinois, 1993 (with Pomerance)
South East Regional Meeting On Numbers, USC, 1993

Service Activity: My service activity is listed in some detail later in this vita. The list of activity is only indicated for the period since my last full review for promotion to full professor in Fall, 1994. The list is intended to clarify time spent outside of teaching and research. The list contains a variety of activity that require some time and effort; for example, I have included the writing of grants which I view as service (as opposed to grants awarded which I view as indicative of strong research).

Miscellaneous Other Activities:

Faculty Advisor for Pi Mu Epsilon (1985-1988)
Judged for Regional Science Fair (1985,1987, 1988)

CONFERENCE TALKS, COLLOQUIA, AND SEMINARS

▷ **Academic Year 2002-2003:**

Primality testing in polynomial time, Colloquium for CSE Department at USC (10/18/02)

Primality testing in polynomial time, USC Number Theory Seminar (10/24/02)

▷ **Academic Year 2001-2002:**

On Nicol's sequence of reducible polynomials, USC Number Theory Seminar (10/29/01)

Some properties of $0, 1$-polynomials, USC Number Theory Seminar (11/05/01)

The irreducibility of classical polynomials and their generalizations, USC Number Theory Seminar (11/12/01)

∗ *The irreducibility of classical polynomials and their generalizations*, Clemson University (11/16/01)

∗ *The irreducibility of classical polynomials and their generalizations*, University of Arizona Colloquium (11/29/01)

∗ *Some proofs associated with irreducibility theorems*, University of Arizona Seminar (11/30/01)

Presentation to Teachers of Solutions to USC Mathematics Competition (01/19/02)

A comment on a third irreducibility theorem of I. Schur, USC Number Theory Seminar (02/13/02)

On the factorization of $x^2 + x$, Part I, USC Number Theory Seminar (02/20/02)

On the factorization of $x^2 + x$, Part II, USC Number Theory Seminar (02/27/02)

On the non-factorization of $x^2 + 7$, USC Number Theory Seminar (03/06/02)

∗ *On the factorization of n(n+1)*, AMS Regional Meeting in Atlanta (03/09/02)

On the factorization of $x^2 + x$ and $x^2 + 7$, South East Regional Meeting On Numbers at Clemson (03/16/02)

∗ *Technology in the mathematics classroom*, for Scholarship Day at USC (03/23/02)

Applications of Padé approximations of $(1-z)^k$ to number theory, USC Number Theory Seminar (04/10/02)

This summary of talks was prepared for the purposes of a post-tenure review in the Fall, 2002. Invited talks are indicated by "∗" placed to the left of the title. Talks are indicated and dates given to the specificity which they are known. The period emphasized corresponds to the period since my last full review in 1994 (for promotion to full professor in 1995). Talks associated with a given academic year are indicated if the activity occurred after July 1 and before June 30 of the year that includes that academic year.

∗ *Applications of Padé approximations of* $(1-z)^k$ *to number theory*, Penn State University Seminar (04/18/02)

An example concerning the irreducibility of $x^n + g(x)$, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

Some properties of $0, 1$*-polynomials*, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

Factoring lacunary (or sparse) polynomials, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

Ljunggren's approach to specific lacunary results, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

Classifying reducible polynomials with small norm, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

The density of squarefree $0, 1$*-polynomials*, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

Testing divisibility by cyclotomic polynomials, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

The polynomial $f(x)x^n + g(x)$, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

A curious connection with the odd covering problem, MSRI Summer Graduate Program at Simon Fraser (June, 2002)

▷ **Academic Year 2000-2001:**

∗ *On the factorization of lacunary polynomials*, University of Georgia Seminar (10/26/00)

On the factorization of lacunary polynomials, USC Number Theory Seminar (11/09/00)

∗ *On the factorization of lacunary polynomials*, University of Michigan Seminar (11/13/00)

Reducible polynomials in support of cheap mathematics, USC Number Theory Seminar (03/09/01)

Examples of reducible polynomials, South East Regional Meeting On Numbers at Furman University (03/24/01)

∗ *Irreducibility of classical polynomials and their generalizations*, Joint Meeting of the AMS and SMM in Morelia, Mexico (05/24/01)

▷ **Academic Year 1999-2000:**

A distribution problem for powerfree values of irreducible polynomials, Part 1, USC Number Theory Seminar (09/13/99)

A distribution problem for powerfree values of irreducible polynomials, Part 2, USC Number Theory Seminar (09/20/99)

A distribution problem for powerfree values of irreducible polynomials, Part 3, USC Number Theory Seminar (09/27/99)

A distribution problem for powerfree values of irreducible polynomials, Part 4, USC Number Theory Seminar (10/04/99)

Some polynomial factoring problems from past West Coast Number Theory Conferences, West Coast Number Theory Conference at Asilomar (12/16/99)

A messy covering of the integers, Part 1, USC Number Theory Seminar (03/17/00)

A messy covering of the integers, Part 2, USC Number Theory Seminar (03/24/00)

A messy covering of the integers, Part 3, USC Number Theory Seminar (03/31/00)

∗ *On coverings of the integers associated with an irreducibility theorem of A. Schinzel*, Millennial Conference on Number Theory at Urbana-Champaign (04/23/00)

▷ **Academic Year 1998-1999:**

∗ *On the factorization of lacunary polynomials*, Penn State University Seminar (11/98)

The odd covering problem and its relatives, Part 1, USC Number Theory Seminar (01/29/99)

The odd covering problem and its relatives, Part 2, USC Number Theory Seminar (02/05/99)

The odd covering problem and its relatives, Part 3, USC Number Theory Seminar (02/12/99)

The odd covering problem and its relatives, Part 4, USC Number Theory Seminar (02/19/99)

∗ *On an irreducibility theorem of A. Schinzel associated with coverings of the integers*, AMS Sectional Meeting at Urbana-Champaign (03/20/99)

∗ *On a problem of Turán*, AMS Sectional Meeting at Las Vegas (04/10/99)

From covering problems to a conjecture of Turán, South East Regional Meeting On Numbers at USC (04/17/99)

∗ *The four color problem*, Career Day at Dutch Fork Elementary School (04/28/99)

On k-free values of irreducible polynomials, Part 1, USC Number Theory Seminar (05/18/99)

On k-free values of irreducible polynomials, Part 2, USC Number Theory Seminar (06/09/99)

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▷ **Academic Year 1997-1998:**

* *On the factorization of polynomials with small Euclidean norms*, International Conference on Number Theory at Zakopane, Poland (07/97)

  Determining if a polynomial has a cyclotomic divisor, Part 1, USC Number Theory Seminar (09/13/97)

  Determining if a polynomial has a cyclotomic divisor, Part 2, USC Number Theory Seminar (09/20/97)

  Factoring lacunary polynomials, West Coast Number Theory Conference (12/97)

  On a limit point associated with the abc-conjecture, USC Number Theory Seminar (03/21/98)

  Classes of polynomials having one non-cyclotomic irreducible factor, USC Number Theory Seminar (03/28/98)

* *The irreducibility of some classical polynomials*, University of Arizona Colloquium (03/98)

* *Finite differences in the study of lattice points close to a curve*, University of Arizona Seminar (03/98)

▷ **Academic Year 1996-1997:**

  The abc-conjecture and related results, Part 1, USC Number Theory Seminar (02/06/97)

  The abc-conjecture and related results, Part 2, USC Number Theory Seminar (02/13/97)

  The abc-conjecture and related results, Part 3, USC Number Theory Seminar (02/20/97)

  On the factorization of $x^n + x^m + x^p + x^q + 1$, Part 1, USC Number Theory Seminar (02/27/97)

  On the factorization of $x^n + x^m + x^p + x^q + 1$, Part 2, USC Number Theory Seminar (03/06/97)

  On the factorization of $x^n + x^m + x^p + x^q + 1$, Part 3, USC Number Theory Seminar (03/20/97)

  A bound on the norm of a factor of a polynomial, USC Number Theory Seminar (04/10/97)

▷ **Academic Year 1995-1996:**

* *Powerfree values of polynomials and binary forms*, International Conference on Sieve Methods, Exponential Sums, and their Applications to Number Theory at Cardiff, Wales (07/95)

* *On an extension of a theorem of Ljunggren*, AMS Sectional Meeting at Greensboro (11/95)

  Connections between the distribution of primes and the irreducibility of polynomials, West Coast Number Theory Conference (12/95)

The irreducibility of all but finitely many Bessel polynomials, South East Regional Meeting On Numbers at Wake Forest (02/96)

▷ **Academic Year 1994-1995:**

* *Applications of finite differences to number theory*, Canadian Number Theory Conference at Halifax (08/94)

* *Powerfree values of polynomials and binary forms*, University of Waterloo Seminar (10/94)

  On generalizing an irreducibility theorem of I. Schur, South East Regional Meeting On Numbers at the College of Charleston (03/95)

* Lecture for the University of South Carolina's Scholarship Day

* *The irreducibility of a large class of polynomials*, University of North Carolina at Greensboro Colloquium (04/95)

* *A generalization of an irreducibility theorem of I. Schur*, International Conference on Analytic Number Theory at Allerton Park, Illinois (05/95)

Prior Research Talks: Before the 1994-1995 academic year, I gave invited talks at

- Michigan Technological University (1993)
- the Canadian Number Theory Conference at Ontario (1991)
- Wake Forest (1990)
- the Combinatorial Number Theory Conference at New York City (1989)
- an Analytic Number Theory Conference at Amalfi, Italy (1989)
- the Illinois Number Theory Conference (1989)
- an additional Canadian Number Theory Conference (1989)
- an additional Illinois Number Theory Conference (1988)
- the Joint AMS-MAA National Meeting at Atlanta (1988)
- the University of Georgia (1987)
- Carleton University (1987)
- the College of Charleston (1986)
- MITRE Corporation (1984)
- and the University of Santa Clara (1984)

I also gave several talks at annual meetings of the West Coast Number Theory Conference as well as several talks at annual meetings of the South East Regional Meeting On Numbers (these two conferences do not have invited speakers). In addition, I gave numerous talks in seminars at USC.

Courses: I have been responsible for over 25 different courses at the University of South Carolina, most on several occasions. Below is a table of these courses.

Course Number	Course Title
122	Calculus for Business Administration and Social Sciences
141	Calculus I
142	Calculus II
174	Discrete Mathematics for Computer Science
221	Basic Concepts of Elementary Mathematics I
241	Calculus III
511	Probability
531	Foundations of Geometry
532	Modern Geometry
541	Algebraic Coding Theory
544	Linear Algebra
552	Applied Complex Variables
554	Analysis I
555	Analysis II
574	Discrete Mathematics I
580	Elementary Number Theory
599F	The Theory of Equations
780	Elementary Number Theory
782	Analytic Number Theory I
783	Analytic Number Theory II
784	Algebraic Number Theory
785	Transcendental Number Theory
788F	The Theory of Irreducible Polynomials
788M	Computational Number Theory
798	Directed Readings and Research
799	Thesis Preparation
890	Graduate Seminar
899	Dissertation Preparation

STUDENT TEACHING EVALUATIONS

The Department of Mathematics uses the same form as that used by the other departments in the College of Science and Mathematics. Among the questions currently on this form (since Fall, 1996) is

"OVERALL, considering all aspects, I rate the overall performance of my instructor as: 1-Fair, 2-Good, 3-Very Good, 4-Excellent"

My last full review was in the Fall of 1994 for the promotion I received to full professor in 1995. During the Spring of 1998, I was on sabbatical; and during the Fall of 2000, I was on leave. Below I have compiled my complete list of mean scores from student evaluation responses to the question above since the question became part of the form in Fall, 1996. For the remaining semesters (Fall, 1994, to Spring, 1996), I have indicated the mean scores to a similar question that existed on the form concerning the "Instructor's Overall Performance".

The range of scores below is from 3.30 to 4.00, from above a mark for "Very Good" to "Excellent" (including four perfect 4.00 scores). Since my promotion, I have taught a variety of courses at all levels. In particular, I have taught 9 graduate courses (numbered above 700) with the average of these scores on the table being 3.83, I have taught 8 upper level undergraduate courses (numbered in the 500's) with the average of these scores being 3.71, and I have taught 10 lower level undergraduate courses (numbered less than 300) with the average score being 3.50.

In addition to the courses indicated below, each semester and each summer since my last full review, I have had two to four additional student enrollments related to the supervision of graduate students (including independent studies, masters theses, and doctoral dissertations).

Course	Spring 2002	Fall 2001	Spring 2001	Spring 2000	Fall 1999	Spring 1999	Fall 1998	Fall 1997	Spring 1997	Fall 1996	Spring 1996	Fall 1995	Spring 1995	Fall 1994
MATH 788F							4.00							
MATH 788M														
MATH 785			4.00	3.60							3.71			
MATH 784	4.00								3.90				3.83	
MATH 782								3.57		3.82				
MATH 780														
MATH 599F														
MATH 574					3.47	3.57						4.00		
MATH 555									3.75					
MATH 554										3.58				
MATH 532	3.70			3.88									3.73	
MATH 241		3.53	3.30		3.31		3.59							3.44
MATH 221											3.50			
MATH 174		3.50												
MATH 141								3.68				3.35		3.77

This table and summary were prepared for the purposes of a post-tenure review in the Fall, 2002.

COMMITTEE DUTIES AND OTHER SERVICE ACTIVITY

▷ **Academic Year 2002-2003:** (year in progress)

Departmental Committees: Department Computer Advisory Committee (CHAIR)
VIGRE Committee
High School Math Contest Committee
Undergraduate Advising
Departmental Newsletter Committee
Subcommittee of Tenured Full Professors to Evaluate Teaching

College Committees: CoSM Computer Advisory Committee
SC Honors College Curriculum Review Committee

Other Service: All-State Math Team Selection Committee
Spectrum Editorial Board for the Mathematical Association of America
Gave two research talks (as of 10/02)
One referee report was written (as of 10/02)
Organized the Number Theory seminars
Putnam Co-Supervisor
Wrote and graded one-half of a comprehensive exam (taken by two students)

Miscellaneous Remarks:

- The VIGRE Committee above is a new committee aimed at obtaining external funds by formulating a National Science Foundation VIGRE proposal.

- Many of the above service activities are assigned or in progress. For explanations concerning specifics of what activities other than the VIGRE Committee entail during a typical academic year, please see the "Miscellaneous Remarks" for the academic year 2001-2002 below.

▷ **Academic Year 2001-2002:**

Departmental Committees: Department Computer Advisory Committee (CHAIR)
F1 Peer Review Teaching Committee (CHAIR)
High School Math Contest Committee
Undergraduate Advising

College Committees: CoSM Computer Advisory Committee
SC Honors College Curriculum Review Committee

This summary of service activity was prepared for the purposes of a post-tenure review in the Fall, 2002. The period covered corresponds to the period since my last full review (the review was in Fall, 1994, for my promotion to full professor in 1995). Service activity associated with a given academic year is indicated if the activity occurred after July 1 and before June 30 of the year that includes that academic year.

Other Service: Spectrum Editorial Board for the Mathematical Association of America
All-State Math Team Selection Committee
Organized and conducted an MSRI Graduate Program (joint with P. Borwein)
Gave four invited research talks (more details below)
Gave nine additional research talks
Gave a talk for the Undergraduate Admissions Office's Scholars Day Program
Wrote and submitted grant proposals to the NSF and NSA (joint with D. Meade)
Referee reports were written for three research papers
Wrote a review for Mathematical Reviews
Organized the Number Theory seminars
Putnam Co-Supervisor

Miscellaneous Remarks:

- As part of my role on the Computer Advisory Committees listed above, I wrote proposals to provide the department with a new server and for four new technology rooms equipped with computers and projection units. I made cases for these requests to the College and each of these requests were funded.

- Each member of the High School Math Contest Committee writes and is involved with the selection of problems that appear on our annual contest that draws hundreds of high school students from throughout the state to USC. Significant time is spent wording and rewording problems to make the questions clear and to avoid any possible misunderstandings. My duties on the committee typically extend beyond this. I am responsible for also providing a typed handout of the solutions to the written contest. In addition, this year I gave a computer presentation (200 pages in Acrobat) of these solutions to the teachers.

- It is the responsibility of the members of the SC Honors College Curriculum Review Committee to read through approximately 20 course proposals (descriptions) each semester and determine if there are any potential problems with offering the courses.

- The Spectrum Editorial Board for the MAA recommends books, on a variety of topics, for publication in the Spectrum series. My duties involve going through several manuscripts a year to help determine if certain proposals for books are appropriate for publication in this series. These manuscripts go through various stages; initially the proposals may be short but often we are working with more polished versions of almost complete books.

- Once a year (in early June), states send high school students to participate in a mathematics competition at Penn State (to obtain state rankings for their performances). The All-State Math Team Selection Committee collects various test scores (SAT's, USC Math Contests, College of Charleston Math Contests, etc.) and gives additional contests to select the high school students who will compete at Penn State for South Carolina. Besides participating in the selection of the students, I have annually produced a written contest with solutions for the purpose of testing the students on how well they can work together as a group (mimicking part of the competition that takes place at Penn State).

- The MSRI Graduate Program was conducted over a two week period at Simon Fraser in Canada and attracted over 40 graduate student participants. In addition to usual organizational concerns associated with conducting the MSRI Graduate Program, I gave 9 lectures for the occasion.

- The invited talks were at Clemson University (11/01), the University of Arizona (11/01), an AMS Sectional Meeting in Atlanta (03/02), and Penn State University (04/02).

- The additional research talks consisted of 8 seminars (at USC) and a talk at the South East Regional Meeting On Numbers.

- The proposal to the National Science Foundation was funded.

- A list of journals that I have refereed for appears earlier in this vita.

- There have been typically 9 to 10 seminars each semester (so 18 to 20 each year); I have been in charge of organizing the seminars each year since my last review (and before).

▷ **Academic Year 2000-2001:** (was on leave in Fall, 2000)

Departmental Committees: Department Computer Advisory Committee
High School Math Contest Committee
Undergraduate Advising

College Committees: SC Honors College Curriculum Review Committee

Other Service: Spectrum Editorial Board for the Mathematical Association of America
All-State Math Team Selection Committee
Co-organized a session of a Sectional Meeting of the AMS at USC
Gave three invited research talks (more details below)
Gave three additional research talks
Referee reports were written for five research papers
Wrote a review for Mathematical Reviews
Reviewed book for Springer-Verlag
Wrote and submitted a grant proposal to the NSF (joint with D. Meade)
Organized the Number Theory seminars
Wrote and graded two halves of comprehensive exams (covering 2 courses)

Miscellaneous Remarks:

- I was on leave during the Fall of 2000.

- See the remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the Spectrum Editorial Board, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- Since I was on leave, I did not participate in selecting problems for the High School Math Contest. Nevertheless, I did compile a typed handout of the solutions to the written contest.

- The session of the Sectional Meeting of the AMS (in 03/01) was co-organized with Ognian Trifonov.

- The invited talks were at the University of Georgia (10/00), the University of Michigan (10/00), and the Joint Meeting of the AMS and SMM in Morelia, Mexico (05/01).

- The additional research talks consisted of 2 seminars (at USC) and a talk at the South East Regional Meeting On Numbers.

▷ **Academic Year 1999-2000:**

Departmental Committees: Post-Tenure Review Committee
Department Computer Advisory Committee
High School Math Contest Committee
Undergraduate Advising
Subcommittee of Tenured Full Professors to Evaluate Teaching

College Committees: SC Honors College Curriculum Review Committee

Other Service: All-State Math Team Selection Committee
Graded for the William Lowell Putnam Exam
Organized the Number Theory seminars
Gave an invited research talk at the Millennial Conference on Number Theory
Gave 8 additional research talks
Wrote and submitted a grant proposal to the NSF (collaborative) and NSA;
     also took part in a SCREMS equipment proposal to NSF
Referee reports were written for four research papers
Wrote a review for Mathematical Reviews
Reviewed NSF proposal
Wrote and graded three halfs of comprehensive exams (covering 3 courses)
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- For the High School Math Contest Committee, my additional duties for 1999-2000 consisted of compiling a typed handout of the solutions to the written contest.

- As a grader for the William Lowell Putnam Exam, I traveled to Santa Clara University to take place in a two day cram grading session in December. The competition is the main national mathematics competition for undergraduates.

- The Millennial Conference on Number Theory was at the University of Illinois (04/00).

- The additional research talks consisted of 7 seminars and a talk at the West Coast Number Theory Conference.

- The collaborative NSF proposal was a proposal with K. Ford (from USC), A. Granville (from UGA), and O. Trifonov (from USC). The SCREMS proposal was coordinated by R. Sharpley; NSF awarded this proposal.

▷ **Academic Year 1998-1999:**

Departmental Committees: Department Computer Advisory Committee
High School Math Contest Committee
Undergraduate Advising
Subcommittee of Tenured Full Professors to Evaluate Teaching

College Committees: SC Honors College Curriculum Review Committee

Other Service: All-State Math Team Selection Committee
Co-organized the South East Regional Meeting On Numbers
Gave three invited research talks (more details below)
Gave 7 additional research talks
Organized the Number Theory seminars
Referee report was written for a research paper
Wrote two reviews for Mathematical Reviews
Reviewed five NSF proposals
Gave a talk for Career Day at Dutch Fork Elementary School
Wrote and graded two halfs of comprehensive exams (covering 2 courses)
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- For the High School Math Contest Committee, my additional duties for 1998-1999 consisted of compiling a typed handout of the solutions to the written contest.

- The South East Regional Meeting On Numbers (SERMON) was held at USC in 04/99. The conference was organized by K. Ford, O. Trifonov, and myself.

- The invited talks were at an AMS Sectional Meeting in Las Vegas, at an AMS Sectional Meeting in Urbana-Champaign, and at Penn State.

- The additional research talks consisted of 6 seminars (at USC) and a talk at the South East Regional Meeting On Numbers.

▷ **Academic Year 1997-1998:**

Departmental Committees: Peer Review of Teaching Policy Committee
Department Computer Advisory Committee
High School Math Contest Committee
Undergraduate Advising

College Committees: SC Honors College Curriculum Review Committee

Other Service: Collaborating Editor for Problem Section of the *American Mathematical Monthly*
All-State Math Team Selection Committee
Graded for the William Lowell Putnam Exam
Gave two invited research talks (more details below)
Gave an additional research talk at the West Coast Number Theory Conference
Organized the Number Theory seminars
Wrote and submitted a grant proposal to the National Security Agency
Referee reports were written for three research papers
Reviewed five NSF proposals
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- For the High School Math Contest Committee, my additional duties for 1997-1998 consisted of compiling a typed handout of the solutions to the written contest.

- As collaborating editor for the problem section of the *American Mathematical Monthly*, I went through proposed solutions to problems posed in the journal, decided which were correct, and wrote up the solution as I felt it should appear in the journal.

- See remarks concerning the grading of the William Lowell Putnam Exam for the year 1999-2000.

- The invited talks were at an International Conference on Number Theory held in Poland and at the University of Arizona.

- The grant proposal to the National Security Agency was awarded (in Fall, 1998).

▷ **Academic Year 1996-1997:**

Departmental Committees: High School Math Contest Committee
Undergraduate Advising

College Committees: SC Honors College Curriculum Review Committee

Other Service: Collaborating Editor for Problem Section of the *American Mathematical Monthly*
All-State Math Team Selection Committee
Supervised an honor's senior thesis (student: James Blair)
Graded for the William Lowell Putnam Exam
Began creating extensive web pages for on-line material
Organized the Number Theory seminars

Referee reports were written for four research papers
Wrote four reviews for Mathematical Reviews
Reviewed two NSF proposals
Wrote and graded two halfs of comprehensive exams (covering 2 courses)
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- For the High School Math Contest Committee, my additional duties for 1997-1998 consisted of compiling a typed handout of the solutions to the written contest.

- See remarks on my work as a collaborating editor for the *American Mathematical Monthly* for the 1997-1998 academic year.

- See remarks concerning the grading of the William Lowell Putnam Exam for the year 1999-2000.

- In addition to forming a web page for myself, I have worked to create and maintain web pages for our Number Theory research group, for USC comprehensive exams in Number Theory, for High School Mathematics Competitions, for course work (including over 350 pages of typed lecture notes), and some interactive pages related to computational research. To illustrate the attention these web pages have received, I have notes on the web for a course in Elementary Number Theory and a search using google.com for pages containing the three phrases "Filaseta" and "Elementary Number Theory" and "notes" gives over 100 hits.

▷ **Academic Year 1995-1996:**

Departmental Committees: Hiring Committee (Chair)
High School Math Contest Committee
Undergraduate Advising

College Committees: SC Honors College Curriculum Review Committee

Other Service: Collaborating Editor for Problem Section of the *American Mathematical Monthly*
All-State Math Team Selection Committee
Supervised an honor's senior thesis (student: Mary Lynch)
Gave three invited research talks (more details below)
Organized the Number Theory seminars
Wrote and submitted a grant proposal to the National Security Agency
Referee reports were written for three research papers
Wrote two reviews for Mathematical Reviews
Reviewed three NSF proposals
Wrote and graded two halfs of comprehensive exams (covering 2 courses)
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- See remarks on my work as a collaborating editor for the *American Mathematical Monthly* for the 1997-1998 academic year.

- The invited talks were at an Analytic Number Theory Conference in Cardiff, Wales, an AMS Sectional Meeting, and the University of Georgia.

- The grant proposal to the National Security Agency was awarded (beginning in early 1997).

▷ **Academic Year 1994-1995:**

Departmental Committees: High School Math Contest Committee
Faculty Advisory Committee
Undergraduate Advising
Subcommittee of Tenured Faculty to Evaluate Teaching

College Committees: SC Honors College Curriculum Review Committee

Other Service: Collaborating Editor for Problem Section of the *American Mathematical Monthly*
All-State Math Team Selection Committee
Gave four invited research talks (more details below)
Organized the Number Theory seminars
Gave a talk for Scholarship Day at USC
Referee reports were written for six research papers
Wrote two reviews for Mathematical Reviews
Putnam Co-Supervisor

Miscellaneous Remarks:

- See remarks for the High School Math Contest Committee, the SC Honors College Curriculum Review Committee, the All-State Math Team Selection Committee, and organizing Number Theory seminars for the 2001-2002 academic year.

- The invited talks were at the Canadian Number Theory Conference in Halifax, the Illinois Number Theory Conference, the University of Waterloo, and the University of North Carolina in Greensboro.

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