CURRICULUM VITAE

NAME: Krishnaswami Alladi

PRESENT POSITION: Professor

ADDRESS: Department of Mathematics
University of Florida
Gainesville, Florida 32611
Ph: (352) 392-0281 (-227)
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BORN: October 5, 1955
Trivandrum, India

DEGREES: Ph.D., U.C.L.A. - 1978; Advisor-E.G. Straus
Alumni Medal for best Ph.D. thesis
M.A., U.C.L.A. - 1976
B.Sc., Madras University, India - 1975

RESEARCH INTERESTS: Number Theory - Analytic Number Theory, Sieve Methods, Probabilistic Number Theory, Diophantine Approximations, Partitions, q-series identities

PROFESSIONAL EXPERIENCE:

T.H. Hildebrandt Research Assistant Professor, University of Michigan, Ann Arbor, Michigan, 1978-1981.
Visiting Member, Institute for Advanced Study, Princeton, New Jersey, 1981-1982.
Visiting Associate Professor, University of Texas, Austin, Texas, 1982-1983.
Visiting Associate Professor, University of Hawaii, Honolulu, Hawaii, 1984-1985.
Associate Professor, Institute of Mathematical Sciences, Madras, India, 1981-1986.
Associate Professor, University of Florida, 1986-1989.
Professor, University of Florida, 1989-present.
Visiting Professor, Pennsylvania State University, University Park, Pennsylvania, in 1992-93 (on sabbatical from University of Florida) and in Fall 1994.
Chairman, Department of Mathematics, University of Florida, 1998-2008

AWARDS:

Chancellor's Fellowship for the Ph.D., 1975-78, UCLA.
Alumni Medal for one of 5 best Ph.D. theses (all subjects) at UCLA in 1978.
CLAS Research Awards at University of Florida thrice: 1987, 1994, 2000
TIP Award for distinguished teaching at the University of Florida in 1994-95.
STEP/SPP Awards for distinguished performance in the rank of Full Professor at the University of Florida twice: 2001, 2010.

GRANTS: (Peer reviewed federal research grants and conference grants)

N.S.F. Grant at University of Michigan, Ann Arbor (1979-80), MCS 78-02685

Supported by N.S.F. Grant MCS 77-18723-A04 at Institute for Advanced Study, Princeton (1981-82)

N.S.F. Grant at University of Florida, Gainesville (1994-98), DMS-9400191.

N.T.F. "Number Theory Foundation" Grant at University of Florida, Spring 2000.

N.S.F. Grant at University of Florida, Gainesville (2000-04), DMS-0088975.

Indo-US Forum Grant (Dept Sci and Technology (DST), India and The National Academy of Sciences, USA) for organizing Int'l Conf on Number Theory and Secure Communications at SASTRA University, Kumbakonam (Ramanujan's hometown), India, Dec 20-22, 2003 inaugurated by the President of India.

N.T.F. Grant for organizing Conf. in Kumbakonam, India, Dec. 2003.

Indo-US Forum Grant (DST India, and the Smithsonian Institution, USA), for organizing Int'l Conf on Fourier Analysis and Number Theory, at SASTRA University, Kumbakonam (Ramanujan's hometown), India, Dec 20-22, 2004.

Indo-US Forum Grant (DST, India and the Smithsonian Institution, USA), for organizing Int'l Conf on Number Theory and Mathematical Physics, at SASTRA University, Kumbakonam (Ramanujan's hometown), India, Dec 20-22, 2005.

National Security Agency Grant (NSA) MSPF-06G-150 - Krishnaswami Alladi (PI), Alexander Berkovich (Co-PI), Frank Garvan (Co-PI) - at the University of Florida, 2006-09.

Indo-US Forum Grant (DST, India and the Smithsonian Institution, USA), for organizing Int'l Conf on Number Theory and Combinatorics, at SASTRA University, Kumbakonam (Ramanujan's hometown), India, Dec 19-22, 2006.

NSF Grant for Conference and Student Workshop on Partitions, Q-series and Modular Forms as part of the Program in Algebra, Number Theory and Combinatorics (ANTC) at the University of Florida, March 2008.

NSF Grant for Conferences, Student Workshop, and Focused Weeks on Quadratic and Higher Degree Forms, Program in ANTC, University of Florida, 2008-11.

NSA Grant MSPF-08G-154 - Krishnaswami Alladi (PI), Alexander Berkovich (Co-PI), Frank Garvan (Co-PI) - at the University of Florida, 2008-11.

NSF Grant for Conference on "Ramanujan 125", University of Florida, Nov 2012 (PI: Frank Garvan; Co-PI: Krishnaswami Alladi)

NSA Grant for Conference on "Ramanujan 125", University of Florida, Nov 2012 (PI: Frank Garvan; Co-PI: Krishnaswami Alladi)

ORGANIZATIONS:

Member of The American Mathematical Society

OTHER PROFESSIONAL ACTIVITIES:

Organizer of a special session on Number Theory at the A.M.S. regional meeting in Notre Dame, March (1981).

Organizer for Number Theory Conferences for "Matscience" in India, June (1981) and January (1984). The Proceedings of both these meetings appeared as Springer Lecture notes 958 and 1122, respectively, under my editorship.

Organizer of a Symposium on Number Theory at the International Conference for Srinivasa Ramanujan's Centennial, Anna University, Madras, India, Dec 1987. The Proceedings appeared as Springer Lecture Notes 1395 under my editorship.

Elected to Panel of Visiting Lecturers, Math Association of America, 1991-1994.

Organizer, International Number Theory Symposium, Anna University, Madras, India, January 1996. The Proceedings of this was published in 1997 as one issue of The Ramanujan Journal under my editorship. (Issue 4, Vol. 1, 1997).

Member of Program Committee (to select the one hour speakers) of the Southeastern Section of the American Mathematical Society, 2002.

Chair of Program Committee (to select the one hour speakers) of the Southeastern Section of the American Mathematical Society, 2003.

Organizer of annual Int'l Conferences on Number Theory and Related Topics at SASTRA University, Kumbakonam, India (Ramanujan's hometown) since 2003.

Member: External Review Committee for Math Dept, Louisiana State University, Baton Rouge in 2004

Chair: SASTRA Ramanujan Prize Committee-2005, 2006, 2007, 2008, 2009, 2010.

Chair: Team for Initial Accreditation of BS Math Programs at The American University of Sharjah and University of Sharjah, United Arab Emirates, 2007.

Member, American Mathematical Society Committee on Committees, 2009-11.

Chair: External Review Committee for the Mathematics Department of the King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, 2009

Chair: Team for Initial Accreditation of MS Math Program at The American University of Sharjah, United Arab Emirates, 2011

Member: Accrediation team for the Math and Stat Dept of the King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, 2012

EDITORSHIP:

Editor-in-Chief of *The Ramanujan Journal* - an international journal devoted to areas influenced by Srinivasa Ramanujan, launched in 1997 by Kluwer Academic Publishers. Now published by Springer.

Editor of a book series - *Developments in Mathematics*, launched by Kluwer Academic Publishers in 1998. Now published by Springer.

Editor - *Notices of the American Mathematical Society*, since 2009.

Editor - *Springer Briefs in Mathematics*, launched in 2011

REVIEWING & REFEREEING ACTIVITIES:

Was Reviewer for Zentralblatt fur Mathematik (Springer).

Referee for several journals of the American Mathematical Society, and those published by leading publishers like Academic Press and Springer.

Refereed proposals for the National Science Foundation, U.S.A., National Science Educational Research Council, Canada, and National Security Agency, U.S.A.

THESES AND DISSERTATIONS DIRECTED:

"On the parity of the number of small prime factors of integers", Salai T. Dhavakodi, University of Florida, 1992.

"Five problems in Combinatorial Number Theory", Zoltan Reti, University of Florida, 1994.

"The rank parity function of Srinivasa Ramanujan", Frank E. Daniels, University of Florida, 1994.

DEPARTMENTAL SERVICE:

Grad Selection Committee, 1987-88, 2009-12. Steering Committee 1988-90.
Search Committee 1988-89, 1989-90, 1990-91; Hiring Plan Committee 2009-10.
Tenure and Promotion Committee, 1991-92, 1995-98, 2011-12
Colloquium/Visitors Committee, 1993-94, 2009-10, 2010-11, 2011-12;
TIP Awards Committee 1993-94. *Chair*: TIP Awards Committee, 1995-96.
Chair: Mathematics Department 1998-2008.

Service as Chairman of the Mathematics Department:

As Chair I have initiated a number of successful programs aimed at getting increased visibility and recognition of our research within campus and internationally and in enhancing collaboration with other disciplines. They include:
The Annual Erdös Colloquium in Pure Mathematics launched in 1998-99
The Annual Ulam Colloquium in Applied Mathematics launched in 1998-99
Special Year Programs launched in 2001-02
John G. Thompson Research Assistant Professorship launched in 2002-03
A vibrant program in biomath launched in 1999-00

In recognition of my services as Chair, I was invited by the Board of Mathematical Sciences to speak at the Annual Mathematics Chairs Colloquium, held at the National Academy of Sciences, Washington D.C. in November 2002. The title of my talk was *Enhancing visibility and strengthening ties with other disciplines.*

In recognition of my services as Chair, I was invited to be one of four Workshop Leaders for a three year period starting 2005 for the Mathematics Chairs Workshops by the American Mathematical Society in conjunction with their Annual Meetings in Atlanta (Jan 2005), San Antonio (Jan 2006) and New Orleans (Jan 2007).

TALKS AND INVITED ADDRESSES AT MEETINGS & COLLOQUIA

Colloquium and Seminar talks:

Have given colloquium talks at various American and European Universities: Boulder (1978), Heidelberg (1979), Ulm (1979), Bonn (1980), Frankfurt (1980), Penn State (1981), Edmonton (1982), Vancouver (1982), Stillwater (1983), Ulm (1983), Frankfurt (1983), Honolulu (1983), Tucson (1985), Boulder (1985), Gainesville (1985), Paris (1986), Nancy (1986), Bordeaux (1986), Stuttgart (1986), Honolulu (1986), Philadelphia (1987), Durham N.H. (1987), Honolulu (1987), Singapore (1987), (1988), (1990), Orlando (1990), Urbana (1992), U.C.L.A. (1992), Penn. State (1992), Trieste (1993), Paris (1993),Nancy (1993), Lyon (1993), Nice (1993), Singapore (1994), Honolulu (1995), UCLA (1995), Paris (1995), Nancy (1995), Lyon (1995), Singapore (1995),Boulder (1996), Honolulu (1997), Tampa (1998), Beijing (1999), Shanghai (1999), Urbana (1999), Singapore (1999), Vienna (2000), Linz (2000), Honolulu (2001),(2002), Beijing (2002), Xian, China (2002), Iizuka, Japan (2002), Brighton, England(2002), Bangalore, India (2003), Penn State (2003), Allahabad, India (2004), Trieste, Italy (2004), Arizona State (2004), Penn State (2005), Essen (2005), Madrid (2006), Hyderabad, India (2006), Shanghai (2006), Urbana (2008), Brigham Young (2008), Indianapolis (2010), Georgia Southern (2010), Georgia Tech (2010), Honolulu (2011).

Have given seminar talks on Number Theory at Maryland (1976), Princeton (1981), CUNY (1982), Georgia (1986), Paris (1986), T.I.F.R. Bombay (1991), Urbana (1992), U.C.L.A. (1992), Penn. State (1992), Paris (1993), Penn. State (1994), Boulder (1996), Singapore (1997), Urbana (1999), Beijing (1999), Shanghai (1999), Singapore (2001), Bangalore, India (2003), Penn State (2003), Allahabad, India (2004), Xian, China (2004), Ohio State (2004), Penn State (2005), Essen (2005), Valencia (2006), Penn State (2007), Urbana (2008), and Brigham Young (2008), Penn State (2008), Emory (2009), Rutgers (2010), Istanbul (2012).

Invited talks at meetings:

Conferences organized by Mathematisches Forschungs Institut, Oberwolfach, West Germany: Diophantine Approximations (1979), Analytic Number Theory (1986), (1988), Enumerative Combinatorics and the Symmetric Groups (1995).

Invited Speaker at special sessions on Number Theory at American Mathematical Society Conferences: Ann Arbor (1980), Knoxville (1980), Notre Dame (1981), Denver (1983), Norman (1983), Anaheim (1985), DeKalb (1993), Vancouver (1993), Minnesota (1994), Greensboro (1995), Philadelphia (1998), Penn. State (1998, 2009), Gainesville (1999), San Francisco (2003, 2006), Urbana (2009).

Conferences supported by N.S.F.: Austin (1982) and Stillwater (1984).

Invited speaker at the conference, "Ramanujan and Science in the Third World," Framingham State University, Massachusetts, October 1987.

Invited speaker at the Symposium on Number Theory at the International Conference for Srinivasa Ramanujan's Centennial, Anna University, Madras, India, December 1987.

In-state invited address at the Florida Section Meeting of the Mathematical Association of America, Winter Park, Florida, March 1988.

Invited address at the Suncoast Regional Meeting of the Mathematical Association of America, St. Petersburg, Florida, December 1988.

Invited speaker at International Conference on Number Theory in honor of Paul Bateman, University of Illinois, Urbana, April 1989.

Invited speaker at the Second Conference of the Canadian Number Theory Association, Univeristy of British Columbia, Vancouver, Canada, August 1989.

Invited address, First Coast Regional Meeting of the Mathematical Association of America, Jacksonville, Florida, October 1990.

Srinivasa Ramanujan Endowment Lecture, Anna University, Madras, India, December 1990.

Illinois Number Theory Conference, University of Illinois at Urbana, April 1992.

Invited speaker, International Conference on Number Theory in honor of Heini Halberstam, University of Illinois at Urbana, May 1995.

Invited Address (one hour), Conference on Special Functions, q-Series and Related Topics organized by The Fields Institute, Toronto, Canada, June 1995.

Invited Speaker, International Symposium on Number Theory, Anna University, Madras, India, January 1996.

Invited Speaker, Tenth Anniversary Conference of The Ramanujan Mathematical Society, Tiruchirapalli, India, January 1996.

Invited Speaker, DIMACS Conference on Combinatorial Number Theory, Rutgers University, February 1996.

Invited speaker, Conf on Number Theory, Penn. State University, August 1997.

Invited speaker, at Special Session on Paul Erdös, Mathematical Association of America Mathfest, Atlanta, August 1997.

Invited talk (45 minutes), International Congress on Algebra and Combinatorics, Hong Kong, August 1997.

Plenary lecture (one hour), Japan Number Theory Conference, Research Institute of Mathematical Sciences (RIMS), Kyoto, November 1997.

Invited speaker, American Mathematical Society Conference in honor of Richard Askey at Mt. Holyoke, June 1998.

Invited speaker at Seminaire Lotharingien de Combinatoire in honor of George Andrews at Maratea, Italy, September 1998.

Invited speaker (one hour), Conference in honor of George Andrews, Penn. State University, October 1998.

Invited speaker, Conference in memory of Paul Erdös, Hungarian Academy of Sciences, Budapest, July 1999.

Invited speaker (one hour), Illinois Number Theory Conference, Urbana, September 1999.

Invited speaker, Millenial Number Theory Conference, University of Illinois, Urbana, May 2000.

Invited speaker, Conference on Number Theory in honor of K. Gyory and A. Sarkozy, Debrecen, Hungary, July 2000.

Invited speaker, Ramunujan Millenium Conference, Panjab University, Chandigarh, India, September 2000.

Invited speaker (one hour), Japan-China Number Theory Conference, Iizuka, Japan, March 2001.

Invited speaker, First Joint Conference of the American and French Mathematical Societies, Lyon, France, July 2001.

Invited speaker, International Conference in Number Theory in honor of Jean-Louis Nicolas, Marseille-Luminy, France, January 2002.

Invited speaker, International Conference on Group Theory in honor of John G. Thompson, Cambridge University, England, September 2002.

Invited to give Weissman Public Lecture of the City University of New York, November 2002.

Invited Plenary Speaker, International Conference on Topology, Zeta Functions and Quantum Physics, University of Kinki, Osaka, Japan, March, 2003.

Invited Speaker (one hour), International Conference on Point Processes, Madras, India, August 2003.

Invited one hour speaker, International Conference on Number Theory and Secure Communications in memory of Ramanujan (inaugurated by the President of India), Kumbakonam, India, Dec. 2003.

Invited opening speaker, International Conference on Number Theory, Bangalore, India, Dec. 2003.

Invited opening speaker, (one hour) Third China Japan Conference on Number Theory, Xian, China, Feb. 2004.

Invited speaker (one hour), Conference in honor of George Andrews for his election to the National Acad. Sci., Penn. State Univ., April 2004.

Invited Speaker (one hour), International Conference on Fourier Analysis and Number Theory, Srinivasa Ramanujan Centre at SASTRA University, Kumbakonam, India, December 2004.

Srinivasa Ramanujan Commemmoration Lecture, SASTRA University, Kumbakonam, India, December 22, 2004.

Invited Speaker, Conference on Combinatorial and Analytic Number Theory (CANT 05) in honor of Mel Nathanson, City University of New York, May 2005

Invited Speaker, International Conference on Probability and Number Theory, Kanazawa, Japan, June 2005.

Plenary Speaker, International Conference on Number Theory and Mathematical Physics, SASTRA University, Kumbakonam, India, Dec 2005.

Invited Speaker, Fourth China-Japan Number Theory Conf., Weihai, Aug 2006

Plenary Speaker, International Conference on Number Theory and Combinatorics, SASTRA University, Kumbakonam, India, Dec 2006.

Principal speaker (45 mins), Conference on Combinatorial and Additive Number Theory, CUNY Graduate Center, May, 2007.

Plenary Speaker, International Conference on Number Theory, Special Functions, and Mathematical Physics, SASTRA University, Kumbakonam, India, Dec 2007.

Invited Speaker, Special Session on Ramanujan, Mathematical Association of America MathFest, Madison, Wisconsin, Aug 2008

Plenary Speaker, Combinatory Analysis 2008, Conference in honor of George Andrews for his 70-th birthday, Penn State University, Dec 2008.

Plenary Speaker, International Conference on Number Theory and Modular Forms, SASTRA University, Kumbakonam, India, Dec 2008.

One hour address, Ramanujan Revisited - International Conference for Venkatachaliengar's Centenary, Bangalore, India, June 2009.

Invited half hour speaker, International Conference on Number Theory and Mock Theta Functions, SASTRA University, Kumbakonam, India, Dec 2009.

Invited hour talk, International Conference on the Renaissance of Combinatorics for Doron Zeilberger's 60-th birthday, Nankai University, China, Aug 2010

Invited half hour talk, International Conference on Number Theory and Automorphic Forms, SASTRA University, Kumbakonam, India, Dec 2010

Invited 40 min talk, MAA Session on the Beauty and Power of Number Theory, Joint Annual Meeting of the American Mathematical Society and the Mathematical Association of America, New Orleans, Jan 2011

Invited 45 minute talk, Conference on Partitions, Emory University, Atlanta, Georgia, Jan 2011

Invited 40 min talk, International Conference on Number Theory, Ergodic Theory, and Dynamics, SASTRA University, Kumbakonam, India, Dec 22, 2011.

REFEREED PUBLICATIONS: (Published, accepted, submitted)

1. *Sets generated by arithmetic sequences*, Proc. Indian Acad. Sci. **81 Ser A.** (1975), 245-251.
2. *On arithmetic functions and divisors of higher order*, J. Austral. Math. Soc. **23 Ser. A., Part I** (1977), 9-27.
3. (with P. Erdös), *On an additive arithmetic function*, Pacific J. Math **71, No. 2** (1977), 275-294.
4. *Analogues to the Hardy-Ramanujan theorems*, Proceedings of the Conference on Numerical Analysis and Number Theory, Publications of Matscience, Madras, India (1977).
5. *Duality between prime factors and an application to the prime number theorem for arithmetic progressions*, J. Number Theory **9** (1977), 436-451.
6. (with C. Grinstead), *On the decomposition of n! into prime powers*, J.Number Theory **9** (1977), 452-458.
7. (with P. Erdös and V.E. Hoggatt, Jr.), *On additive partitions of integers*, Discrete Math **22** (1978), 201-211.
8. (with P. Erdös), *Asymptotic behavior of large prime factors of integers*, Pacific J. Math **82** (1979), 295-315.
9. (with M.L. Robinson), *On certain irrational values of the logarithm*, Proc. Conf. on Number Theory, Carbondale, Springer Lecture Notes **751** (1979), 1-10.
10. *Legendre polynomials and irrational numbers*, Matscience Report 100, Publications of Matscience, Institute for Mathematical Sciences, Madras, India (1979).
11. (with M.L. Robinson), *Legendre polynomials and irrationality*, J. Reine Angew. Math **318** (1980), 137-155.
12. *On the probability that n and $\Omega(n)$ are relatively prime*, Fibonacci Quart. **19** (1981), 228-233.
13. *Asymptotic estimates of sums involving the Moebius function*, J. Number Theory **14** (1982), 86-98.
14. *Asymptotic estimates of sums involving the Moebius function, II*, Trans. Amer. Math. Soc. **272** (1982), 87-105.
15. *The Moebius function and integers with restricted prime factors*, Proceedings of the conference on Number Theory, Matscience Report No. 101, Publications of Matscience, Institute for Mathematical Sciences, Madras, India (1980).
16. *Distribution of v(n) in sieve of Eratosthenes*, Quart. J. Math., Oxford **33** (1982), 129-148.
17. *Additive functions and special sets of integers*, Proc. of Third Matscience Conference on Number Theory, Mysore, India, Springer Lecture Notes **958** (1982), 1-50.
18. *The Turan-Kubilius inequality for integers without large prime factors*, J. Reine Angew. Math. **335** (1982), 180-196.
19. *A study of the moments of additive functions using Laplace transforms and sieve methods*, Proc. Fourth Matscience Number Theory Conf., Springer Lecture Notes **1122** (1985), 1-37.
20. *Moments of additive functions and sieve methods*, New York Number Theory Seminar, Springer Lecture Notes **1052** (1984), 1-25.

21. *A new application of the Sieve to Probabilistic Number Theory*, Topics in Analytic Number Theory, Proc. of Austin Number Theory Conf., Univ. Texas Press (1985), 1-27.
22. *Moments of additive functions and the sequence of shifted primes*, Pacific J. Math **118** (1985, Straus memorial issue), 261-275.
23. (with P. Erdös and J.D. Vaaler), *Multiplicative functions and small divisors*, Analytic Number Theory and Diophantine Problems, Proc. of Oklahoma Number Theory Conf., Birkhauser Progress in Math. **70** (1987), 1-13.
24. *An Erdös-Kac Theorem for integers without large prime factors*, Acta Arithmetica, Erdös 75th birthday issue **49** (1987), 81-105.
25. *Moments of additive functions and special sets*, Proc. 1986-87 Seminar on Number Theory, Universite de Bordeaux **No. 1**, 1-13.
26. (with P. Erdös and J.D. Vaaler), *Multiplicative functions and small divisors-II*, J. Number Theory **31** (1989), 183-190.
27. *Probabilistic Number Theory and Brun's sieve* Proc. 1986-87 Seminaire de Theorie des Nombres, Paris, Progress in Math., Birkhauser **75** (1988), 1-26.
28. *Multiplicative functions and Brun's Sieve*, Acta Arithmetica **51** (1988), 201-219.
29. *The distribution of additive functions in special sets of integers,* Proc. Ramanujan Centenary Conference, Anna University, Madras, India, Springer-Lecture Notes **1395** (1989), 21-63.
30. (with Basil Gordon), *Partition identities and a continued fraction of Ramanujan*, Journal of Combinatorial Theory **Ser.A 63** (1993), 275-300.
31. (with Basil Gordon), *Generalizations of Schur's partition theorem*, Manuscripta Mathematica **79** (1993), 113-126.
32. *On the modified convergence of continued fractions of Rogers-Ramanujan type*, Journal of Combinatorial Theory Theory **Ser. A, 66** (1994), 214-245.
33. (with Basil Gordon), *Vanishing coefficients in the expansion of products of Rogers-Ramanujan type*, Contemp Math. **166** (1994), 129-139.
34. (with George E. Andrews and Basil Gordon), *Generalizations and refinements of partition theorems of Göllnitz*, J. Reine Angew. Math., **460** (1995), 165-188.
35. *Some new observations on the Göllnitz-Gordon and Rogers-Ramanujan identities*, Transactions Amer. Math. Soc., **347** (1995), 897-914..
36. *The Quintuple Product Identity and Shifted Partition Functions*, J. Computational and Applied Math., *Special issue on q-series*, **68** (1996), 3-13.
37. (with Basil Gordon), *Schur's partition theorem, companions, refinements and generalizations*, Transactions Amer. Math. Soc., **347** (1995), 1591-1608.
38. (with George E. Andrews and Basil Gordon), *Refinements and generalizations of Capparelli's conjecture on partitions*, Journal of Algebra, **174** (1995), 636-658.
39. *The method of weighted words and applications to partitions*, in Proc. 1992-93 Seminaire de Theorie des Nombres, Paris, London Math. Soc. Lecture Note Ser., **215** (1995), 1-36.
40. *Partition identities involving gaps and weights*, Transactions Amer. Math. Soc., **349** (1997), 5001-5019.
41. *A combinatorial correspondence related to Göllnitz' (Big) partition theorem and applications*, Transactions Amer. Math. Soc. **349** (1997), 2721-2735.

42. (with George E. Andrews), *A new key identity for Göllnitz' (Big) partition theorem*, Proc. 10th Anniv. Conf. of the Ramanujan Math. Soc., Contemp. Math., **210** (1997), 229-241.
43. *Weighted partition identities and applications*, in Proceedings of the Halberstam Conference, Progress in Mathematics, Birkhauser **138** (1996), 1-15.
44. *Refinements of Rogers-Ramanujan type identities*, in Proceedings of the Fields Institute Conference on special functions, q-series and related topics, Fields Institute Communications **147** (1997), 1-35.
45. *Partition identities involving gaps and weights-II*, The Ramanujan Journal **2** (1998), 21-38.
46. *On a partition theorem of Göllnitz and quartic transformations*, (with an appendix by Basil Gordon), Journal of Number Theory, **69** (1998), 153-180.
47. (with George E. Andrews), *A quartic key identity for a partition theorem of Göllnitz*, Journal of Number Theory **75** (1999), 220-236.
48. *A variation on a theme of Sylvester-a smoother road to Göllnitz' (Big) theorem*, Discrete Math. **196** (1999), 1-11.
49. *A fundamental invariant in the theory of partitions*, in Topics in Number Theory,(Ahlgren, George Andrews, Ken Ono, Eds.), Proc. 1997 Conf. at Penn. State Univ., Mathematics and its Applications, Kluwer **113,** (1999), 101-113.
50. *A fundamental but unexploited partition invariant*, in Number Theory and its Applications (S, Kanemitsu, and K.Gyory, Eds.), Proceedings 1997 Kyoto Conference on Number Theory, Developments in Math. Kluwer **2** (1999), 19-23.
51. *Reformulations of a partition theorem of Göllnitz and q-series identities,* in q-series from a comtemporary perspective Proc. of Conf. in honor of Richard Askey, Contemp. Math, **254** (2002), 31-44.
52. (with R. Solomon and A. Turull), *Finite simple groups of bounded subgroup chain length*, Journal of Algebra **231** (2000), 374-386.
53. *"Going beyond the Big Theorem of Göllnitz- a breakthrough in the theory of partitions and q-series"*, Math. Assoc. of America-Focus **20** (2000), 8-9.
54. (with A. Berkovich), *A double bounded key identity for a partition theorem of Göllnitz*, in Symbolic Computation, Number Theory, Special Functions, Physics, and Combinatorics (Frank Garvan and Mourad Ismail Eds.), Developments in Math., Kluwer Acad. Publ., Dordrecht **5** (2001), 13-32.
55. (with A. Berkovich), *A double bounded version of Schur's partition theorem*, Combinatorica, Erdös Memorial Volume **22** (2002), 151-168.
56. (with A. Berkovich), *New weighted Rogers-Ramanujan partition theorems and their implications*, Transactions Amer. Math. Soc. **354** (2002), 2557-2577.
57. (with G.E. Andrews and A. Berkovich), *A four parameter generalization of Göllnitz's (big) partition theorem*, in Proc. DIMACS conference on Unusual Applications of Number Theory, DIMACS series in Discrete Math. and Theoretical Computer Sci., **64** (2004), 1-7.
58. (with G.E. Andrews and A. Berkovich), *A new four parameter q-series identity and its partition implications*, Inventiones Mathematicae **153** (2003), 231-260.
59. (with A. Berkovich), *New polynomial analogues of Jacobi's triple product and Lebesque identities*, Advances in Applied Math., **32** (2004), 801-824.

60. (with A. Berkovich), *A limiting form of the q-Dixon ${}_4\phi_3$ summation and related partition identities*, in Refinements of Number Theoretic Methods (C.Jia and S. Kanemitsu, Eds), Developments in Math, **8** (2003), 1-14.
61. (with A. Berkovich), *Göllnitz-Gordon partitions with weights and parity conditions*, in Zeta Functions, Topology, and Quantum Physics (T. Aoki and S. Kanemitsu, Eds), Developments in Math., Springer **14** (2005), 1-18.
62. (with George Andrews, Ken Ono, and Richard McIntosh), *On the work of Basil Gordon*, Journal of Combinatorial Theory, Ser A **113** (2006), 21-38.
63. *"A pilgrimage to Ramanujan's hometown"*, Math. Assoc. of America-Focus **26** (2006), 4-6.
64. *"The first SASTRA Ramanujan prizes"*, Math. Assoc. of America-Focus **26** (2006), 7.
65. (with A. Berkovich), *Series and polynomial representations for weighted Rogers-Ramanujan partitions and products modulo 6*, Adv. Studies in Pure Math. **43** (2007), 1-18.
66. *A new combinatorial study of the Rogers-Fine identity and a related partial theta series*, Int'l. J. Num. Th. **5** (2009), 1311-1320.
67. *A partial theta identity of Ramanujan and its number theoretic interpretation*, Ramanujan J. **20** (2009), 329-339.
68. *Partitions with non-repeating odd parts and q-hypergeometric identities*, in The legacy of Alladi Ramakrishnan in the mathematical sciences (K. Alladi, J. R. Klauder, C. R. Rao, Eds.), **Springer** (2010), 169-182.
69. *Combinatorial analysis and comparison of partial theta identities of Andrews and Ramanujan*, Ramanujan J. **23** (2010), 227-241.
70. *Basis partitions and their signature* (preprint, will be completed in 2011).
71. *A multi-dimensional extension of Sylvester's identity* (preprint, will be completed in 2011).
72. *Variants of q-hypergeometric identities and partition implications* (2010 preprint, 25 pages).
73. *A new proof of Euler's partition theorem on odd parts and distinct parts and a refinement* (2010 preprint 10 pages).
74. *Partitions into odd parts and distinct parts - an expose* (2010, in preparation, about 100 pages).
75. *Analysis of a generalized Lebesgue identity in Ramanujan's Lost Notebook*, Ramanujan J. (Ramanujan 125-th birthday volume) **29** (2012, to appear).

BOOK REVIEWS:

1. *The man who knew infinity*, (by Robert Kanigel), The American Scientist **80** (1992), 388-389.
2. *Ramanujan: Letters and Commentary*, (by Bruce C. Berndt and Robert A. Rankin), The American Mathematical Monthly **103** (1996), 708-713.
3. *Ramanujan: Essays and Surveys*, (by Bruce C. Berndt and Robert A. Rankin), The American Mathematical Monthly **110** (2003), 861-865.

OBITUARY ARTICLES:

1. *Institute visit inspired creation of the Institute of Mathematical Sciences in Madras - Alladi Ramakrishnan (1923-2008)*, The Institute Letter (Institute for Advanced Study, Princeton) **Spring** (2009), 7.

BOOKS/VOLUMES EDITED

1) *Number Theory*, Proceedings - Third Matscience Number Theory Conference, Mysore, India, **Lecture Notes in Mathematics, Vol. 958, Springer-Verlag** (1982), 175 pages.

2) *Number Theory*, Proceedings - Fourth Matscience Number Theory Conference, Ootacamund, India, **Lecture Notes in Mathematics, Vol. 1122, Springer-Verlag**, (1985), 217 pages.

3) *Number Theory*, Proceedings - 1987 Ramanujan Centenary Conference, Madras, India, **Lecture Notes in Mathematics, Vol. 1395, Springer-Verlag**, (1989), 234 pages.

4) *Analytic and Elementary Number Theory - a tribute to mathematical legend Paul Erdös*(K. Alladi, P. D. T. A. Elliott, A. Granville, and G. Tenenbaum, Eds.), **Developments in Mathematics, Vol. 1, Kluwer Academic Publishers** (1998), 298 pages.

5)* *Jean-Louis Nicolas and Number Theory* (K. Alladi, C. Mauduit, C. Pomerance, A. Sarkozy, and G. Tenenbaum, Eds.), A selection of research papers from the 2002 Conference in honor of Prof. Nicolas in Marseille, **The Ramanujan Journal, Vol 9, Springer New York** (2005), 264 pages.

6) *Surveys in Number Theory* (K. Alladi, Ed.), A selection of featured expositions of the 2004-05 Special Year in Number Theory at UF, **Developments in Mathematics, Vol 17, Springer, New York** (2008), 188 pages.

7)* *The SASTRA Ramanujan Lectures* (K. Alladi, Ed.), A selection of research papers and surveys as outgrowths of hour lectures given at the annual SASTRA Number Theory Conferences, **The Ramanujan Journal, Vol 20, Springer, New York** (2009), 187 pages.

8) *The legacy of Alladi Ramakrishnan in the mathematical sciences* (K. Alladi, J. R. Klauder, C. R. Rao, Eds.), A selection of research and survey papers in pure mathematics, probability, statistics, applied mathematics, and theoretical physics in memory of Alladi Ramakrishnan, **Springer, New York** (2010), 575 pages.

9)* *Combinatory Analysis* (K. Alladi, P. Paule, J. Sellers, A. J. Yee, Eds.), A selection of research papers in combinatory analysis dedicated to George Andrews for his 70-th birthday, **The Ramanujan Journal, Volume 23, Springer, New York** (2010), 430 pages.

10) *Partitions, q-series, and modular forms* (K. Alladi and F. Garvan, Eds.), Proc. 2008 Gainesville Conference, **Developments in Math., Volume 23, (2011) Springer, New York** 224 pages.

***NOTE:** The Ramanujan Journal (Springer) of which I am the Editor-in-Chief, comes out with special volumes from time to time and these are edited by different members of the editorial board along with guest editors, if necessary. Items 5), 7) and 9) above are special volumes of The Ramanujan Journal that I have edited.

OTHER WRITINGS:

For the benefit of the general public, I have contributed several articles to "The Hindu", India's National Newspaper, on Ramanujan and other mathematical luminaries whose work is connected to that of Ramanujan. Many of these articles appeared in December because Ramanujan's birthday is on December 22 and The Hindu invited me to write articles as birthday tributes.

1. *"Ramanujan-an estimation"*, The Hindu, Dec.22, 1987, Ramanujan Centennial.
2. *"Ramanujan- the second century"*, The Hindu, Dec.22, 1991.
3. *"L.J. Rogers- a contemporary of Ramanujan"*, The Hindu, Dec. 1992.
4. *"P.A. MacMahon- Ramanujan's distinguished contemporary"*, The Hindu, Dec. 1993.
5. *"Ramanujan and pi"*, The Hindu, Dec. 1994.
6. *"Fermat and Ramanujan- a comparison"*, The Hindu, Jan. 1995.
7. *"J.J. Sylvester- Ramanujan's illustrious predecessor"*, The Hindu, Dec. 1995.
8. *"Erdös and Ramanujan- legends of twentieth century mathematics"*, The Hindu, Dec. 1996.
9. *"The Ramanujan Journal- its conception, need, and place"*, The Hindu, Jan. 17, 1997.
10. *"C.G.J. Jacobi- algorist par-excellence"*, The Hindu, Dec. 1997.
11. *"Ramanujan and partitions"*, The Hindu, Dec. 1999.
12. *"Evariste Galois- founder of group theory"*, The Hindu, Dec. 2000.
13. *"Leonhard Euler- most prolific mathematician in history"*, The Hindu, Dec. 2001.
14. *"G.H. Hardy- Ramanujan's mentor"*, The Hindu, Jan. 2003.
15. *"Partitions- a play on Ramanujan"*, The Hindu, May 2003.
16. *"J.E. Littlewood-Hardy's collaborator and Ramanujan's contemporary"*, The Hindu, Dec. 2003.
17. *"Ramanujan's growing influence"*, The Hindu, Dec. 2003.
18. *"Neils Henrik Abel - Norwegian mathematical genius"*, The Hindu, Dec. 2004.
19. *"Issai Schur - Ramanujan's German contemporary"*, The Hindu, Dec 22, 2005.
20. *"Solution of a problem of Ramanujan on quadratic forms"*, The Hindu, Dec 23, 2005.
21. *"Major progress in prime number theory"*, The Hindu, Dec 25, 2006.

Special publication for Ramanujan's 125-th birth anniversary: The year 2012 is Srinivasa Ramanujan's 125-th birth anniversary. In that connection, the collection of all articles I have written about Ramanujan since his Centennial in 1987 including the articles in The Hindu listed above, the book reviews listed on page 11, and others, will appear as a book:
Ramanujan - his place in the world of mathematics, Springer India, New Delhi (2012), 120 pp.

MY ACCOMPLISHMENTS IN THE LAST DECADE

The following is a summary of some of my major accomplishments as Chair of the Mathematics Department at the University of Florida, and as a research mathematician.

My accomplishments as Chair are described to provide an idea of what I have accomplished as an administrator. My contributions as a researcher are described to provide an idea of my scholarship.

Chairmanship 1998-2008

My primary goal when appointed Chair in 1998 was to build on existing strengths and to gain increased visibility and recognition of our research both within the university and internationally. I have accomplished all the goals I set out in 1998. The last decade has been the finest for the Mathematics Department of the University of Florida in terms of research accomplishment, international visibility and faculty recognition. I provide a few highlights where my efforts and support were helpful.

Distinguished Colloquia: I created a series of annual Distinguished Colloquia -
1) The Erdös Colloquium in Pure Mathematics
2) The Ulam Colloquium in Applied Mathematics
3) The Center for Applied Mathematics Colloquium
4) The Ramanujan Colloquium (with the help of George Andrews the sponsor)

These have been outstanding successes. By bringing world class mathematicians to campus for lectures of wide appeal, I have made students and faculty on this campus aware of important advances in mathematics. These colloquia have featured six Fields Medalists, two Abel laureates, and several members of the National Academy of Sciences.

Special Years Program: Launched in 2001-02, this program ran for six years. Each Special Year had an area of focus with a comprehensive program of conferences, workshops, courses by visiting mathematicians, and History Lectures of wide appeal. They were very well funded by the National Science Foundation (NSF), the National Security Agency (NSA), and the Number Theory Foundation (NTF). All the active research groups in the Department were involved in this program, and the research atmosphere was invigorated. The steady flow of eminent researchers and the contact established with them resulted in the excellent placement of our PhDs.

The John Thompson Research Assistant Professorship: Graduate Research Professor John Thompson (winner of the Fields Medal and other international prizes) was awarded the National Medal of Science in December 2000. To suitably honor Professor Thompson, and to enhance the research atmosphere in the Department, I proposed the creation of the Thompson Research Assistant Professorship to be awarded to the best recent PhDs. This was modeled along the lines of similar postions at top universities around the nation. With support from the administration, this position was launched in 2002-03.

Hiring plan/Creation of a biomath program: During my ten year term as Chair, several excellent appointments were made in different areas. One of my first actions as Chair was to formulate a Hiring Plan. When I was appointed Chair in 1998, the size of our faculty was 55. By 2004, the size had grown to 67. In particular, it was during my term that a biomath program was initiated and developed.

Leader of AMS Chairs Workshop: The American Mathematical Society (AMS) invited me to be one of four leaders for the Mathematics Chairs Workshop conducted in conjunction with the Annual Meeting of the AMS each January. My three year term as a Workshop Leader concluded in January 2007.

Prior to this, I was invited to give a talk by the Board of Mathematical Sciences of the National Academy of Sciences, entitled "Enhancing visibility and strengthening ties with other disciplines" at their meeting in Washington DC in 2002.

Increase in research funding: During my term as Chair, the external funding received by the department increased steadily, and tripled in ten years.

Faculty recognition: I have worked hard to get our faculty and students recognized for their teaching and research. During my ten year term, faculty and graduate students in the department received teaching awards each year, and very prestigious research awards within the university. My term as Chair concluded with my colleague John Thompson winning the *Abel Prize* (known as the Nobel Prize of Mathematics) from the King of Norway in May 2008. I had the privilege of nominating Professor Thompson for the prize and was therefore invited to the prize ceremony in Oslo. I was also made one of the press contacts for the 2008 Abel Prize. The Abel Prize brought unparalleled recognition to the mathematics department and the University of Florida.

Recent research accomplishments

I am a number theorist whose current research is in the theory of partitions and q-hypergeometric series, a subject founded by Euler in the mid-eighteenth century. In the beginning of the twentieth century, the subject underwent a glorious transformation under the magic touch of the Indian genius Srinivasa Ramanujan. This subject has since blossommed into an exciting area of research and is now at the cross roads of number theory, combinatorics, analysis, the theory of modular forms, and Lie algebras, and has implications in computer science and physics. My research since the early nineties has been on Rogers-Ramanujan type identities. In particular, I am known for having initiated two main streams of development: (i) *the method of weighted words*, and (ii) *the theory of weighted partition identities*. The most significant achievement was the resolution of a thirty year old problem in collaboration with Andrews and my colleague Berkovich. This work appeared in *Inventiones Mathematicae* (one of the most prestigious mathematics journals) in 2003 and was communicated by Fields Medalist Gerd Faltings. A feature article on this work appeared in the UF Research Magazine EXPLORE in fall 2000. Recognition of my work has come in the form of federally funded peer reviewed individual investigator research grants from the NSF and NSA, and several invitations to deliver hour lectures at major international conferences.

Starting in 2007-08, I am leading a research Program on Algebra, Number Theory and Combinatorics (ANTC) at the University of Florida, modeled along the lines of the highly successful Special Years (which ran during 2001-07) but in a more enhanced fashion.

Contribution to the profession

THE RAMANUJAN JOURNAL

I am Editor-in-Chief of *The Ramanujan Journal*, an international journal devoted to all areas of mathematics influenced by the Indian genius Srinivasa Ramanujan. The spectacular discoveries of Ramanujan in the early part of the twentieth century revealed surprising and fundamental connections between many branches of mathematics. Over the years Ramanujan's work has had profound influence in many fields such as analysis, number theory, combinatorics, modular forms, physics, and computer algebra. Problems stemming from his work continue to excite researchers today and will engage their attention in the future. Thus I got the idea to launch this journal which is devoted to all areas of mathematics that have been influenced by his discoveries. Thus the journal simultaneously has a sense of focus and a wide scope because it deals with current research in all these areas. With the strong support of the international community of researchers this journal was launched in 1997 by Kluwer Academic Publishers. The journal is now published by Springer. More than 25 leading mathematicians worldwide serve on the editorial board with me. Without a doubt, in these few years, it has become the pre-eminent journal is the area of basic-hypergeometric series (q-series) and related topics - an area where Ramanujan has had tremendous influence, and is making a big impact in other areas like modular forms, number theory, and conformal field theory in physics as well. The success of the journal can be measured by the fact that we have increased the number of issues from 4 to 9 per year.

DEVELOPMENTS IN MATHEMATICS

Based on the success of The Ramanujan Journal, Kluwer Academic Publishers decided to launch a book series in 1998 called *Developments in Mathematics* - DEVM in short. This too is now published by Springer. I have been Series Editor for DEVM since its inception. The book series publishes refereed conference proceedings, research monographs, and contributed volumes, in all areas of mathematics. A contributed volume is a selection of invited papers on a topic of current research interest, or on a classical topic which may once again have come into the limelight owing to new developments. As Series Editor I make recommendations as to which conference proceedings or research monographs should be included in the series. Starting in 2009, DEVM has been enhanced in scope with Hershel Farkas and Robert Guralnick joining me as Series Editors.

SASTRA RAMANUJAN PRIZE

The Shanmugha Arts, Science, Technology, Research Academy (SASTRA), based in the state of Tamil Nadu in South India, has purchased the home of the Srinivasa Ramanujan in Kumbakonam, in order to maintain it as a museum. Thus SASTRA in playing a crucial role in the preservation of Ramanujan's legacy for posterity. SASTRA has instituted a Ramanujan Prize of $10,000 to be awarded annually to a mathematician not exceeding the age of 32 for outstanding contributions in an area of mathematics influenced by the late Indian mathematical genius Srinivasa Ramanujan. Young mathematicians all over the world are eligible for this award. The age limit has been set at 32 because Ramanujan achieved so much in his brief life of 32 years, and also to encourage doctoral and post-doctoral research. I helped SASTRA set up the prize. Starting from December 2005, the SASTRA Ramanujan Prize is awarded annually. I have been Chair of the SASTRA Ramanujan Prize Committee every year since the inception of the prize in 2005.

Within a few years this prize has won international acclaim as can be seen from prominent reports especially in the Notices of the American Mathematical Society. As Chair of the Prize Committee I serve the profession by recognizing outstanding mathematical research by very young mathematicians.

MATHEMATICS OLYMPIADS IN INDIA

In 2004 I was invited to set the question papers for two mathematics Olympiads in India. The first of these was conducted in July 2004 by INFOSYS, one of the largest computer software companies in India. This was for high school students all over India. I was then invited to give a series of eight lectures (four in Madras and four in Bangalore) for the participants of the Olympiad on the importance of the Olympiad questions and their connections with current research. I was also invited to set the question paper for a mathematics olympiad conducted by SASTRA University. Over 3,500 high school students all over India took part in this Olympiad which was conducted on December 26, 2004.

RAMANUJAN'S 125-th BIRTH ANNIVERSARY

The year 2012 is Srinivasa Ramanujan's 125-th birth anniversary and I am involved in the celebrations in many ways: (i) in organizing international conferences at the University of Florida in November and in two in India in December, (ii) in bringing out a special volume of the Ramanujan Journal (Springer), (iii) in editing a feature article in the December issue of the Notices of the AMS, and (iv) in publishing a book (Springer) consisting of a collection of my articles on Ramanujan since the Ramanujan Centennial in 1987.

APPENDIX: RESEARCH AS AN UNDERGRADUATE

I actually started doing research on my own as an undergraduate student in India in 1972 while at Vivekananda College of the University of Madras. I first worked on Fibonacci numbers and published a few papers in the Fibonacci Quarterly. I then worked on arithmetical functions in the theory of numbers. I presented this work at two international summer institutes:

1) Undergraduate participant, Institute on Number Theory, University of Michigan, Ann Arbor, Michigan (1973).

2) Undergraduate participant, Institute on Complex Analysis, International Centre for Theoretical Physics, Trieste, Italy (1975).

I also spent six weeks working with the great number theorist Kurt Mahler as a

3) Visiting Scholar, Australian National University, Canberra, Fall 1973.

My work on arithmetical functions attracted the attention Professor Paul Erdös, one of the greatest mathematicians of the twentieth century, whose life's mission was to spot talented young students and encourage them to pursue mathematics. In December 1974, Professor Erdos was attending a conference at the Indian Statistical Institute in Calcutta. My paper "A new logarithmic function" was accepted for presentation at this conference. But I could not attend the conference due to my college exams. My father Professor Alladi Ramakrishnan, who was a theoretical physicist, was going to that conference to give an hour lecture on his work. So I requested him to present my paper as well, which he did. Professor Erdös attended the talk my father gave on my work and told my father that he would like to meet me. Erdös was on his way to Sydney from Calcutta. He rerouted his flight and came to Madras to meet me. While he was in Madras for a few days, we discussed about arithmetical functions and my work in that area. I had completed one paper (see paper 2 in my bibliography) on arithmetical functions by then, which I showed him. He took it with him and wrote to me from Sydney that he spoke to Professor George Szekeres, Editor of the Journal of the Australian Mathematical Society, and that my paper will appear in that journal.

While he was in Madras, I told Professor Erdös that I had applied for admission to for graduate studies in the United States. He immediately wrote a letter and within two weeks I received the Chancellors Fellowship at UCLA for a PhD, which I accepted.

During his stay in Madrasn we had several discussions related to my work on what I had called as a new logarithmic function. We corresponded on this for the next couple of years. This resulted in two of my joint papers with him (papers 3 and 8 in my bibliography) that appeared in the Pacific Journal of Mathematics.

Two books on the remarkable life of Paul Erdös have been published. One of the books by Bruce Schechter starts with the chapter entitled "Traveling", in which the worldwide travels of Erdös are described. This chapter begins with a mission of Erdös to spot young mathematicians on his travels. As the first example, the author describes the story of Professor Erdös rerouting his trip to fly via Madras to meet me: *My Brain is Open - the mathematical journeys of Paul Erdös*, by Bruce Schechter, Simon and Schuster, New York (1998), 15-16.