

## CURRICULUM VITAE

### JULIA MUELLER

**Ph.D. Thesis:** *Primes and Zeros in Short Intervals.*  
Columbia University, 1977.

**Thesis Supervisor:** Professor Patrick X. Gallagher.

#### Academic Positions:

1976-77: Member, Institute for Advanced Study.  
1977-78: Visiting Scholar, Columbia University.  
1978-79: Instructor, Brooklyn College.  
1979-86: Assistant Professor, Fordham University.  
1986-90: Associate Professor, Fordham University.  
1990—: Professor, Fordham University.

#### Visiting Academic Positions:

1981-82: Assistant to Professor E. Bombieri,  
Institute for Advanced Study.  
1983 (July): Visiting Scholar, University of Geneva,  
Geneva, Switzerland.  
1983-84 (Spring): Visiting Member, Institute for Advanced Study.  
1984-85 (Spring): Visiting Scholar, Columbia University.  
1985-86: Visiting Member, Institute for Advanced Study.  
1986 (May-June): Visiting Scholar, University of Paris VI.  
1986 (July): Visiting Scholar, University of Geneva,  
Geneva, Switzerland.  
1987-88 (Fall): Visiting Associate Professor,  
Columbia University.  
1987-1988 (Spring): Visiting Associate Professor,  
University of California, Santa Barbara.  
1991-92: Visiting Professor, Columbia University.  
1992-93 (Fall): Member, Institute for Advanced Study,  
Princeton, New Jersey.  
1992-93 (Spring): Member, Mathematical Sciences Research  
Institute, Berkeley, California.

1991 (July) Visiting Scholar, University of Geneva  
1994 (June): Visiting Scholar, University of Paris VI  
1995 (May-June): Visiting Scholar, University of Paris VI

Grants and Fellowships received from 1981-1996

(1) Research Grants for Summer

The stipend of each summer research grant listed below carried 2/9 of my academic salary plus funds for travel and for purchasing research related items.

(1982-1993) Recipient of a continuing grant from the National Science Foundation (NSF). The duration of each grant was two years.

(1994-1996) Recipient of a grant from the National Security Agency. The duration of this grant was two years.

(2) Research Fellowships for Academic Years

The stipend of the fellowships listed below, except for the Faculty Fellowships from Fordham and the NSF fellowship 1991-92, range from \$10,000 to \$15,000 for one semester.

1981-82 (Fall & Spring): Fellowship awarded by the Institute for Advanced Study in Princeton.

1985 (Spring): Research fellowship in Number Theory awarded by James Vaughan Foundation.

1987-88 (Fall & Spring): Faculty Fellowship awarded by Fordham University.

1991-92 (Fall & Spring): Recipient of the NSF fellowship "Visiting Professorship for Women".  
(The stipend of this fellowship was approximately \$100,000)

1992-93 (Fall & Spring): Faculty Fellowship awarded by Fordham University.

1992 (Fall): Fellowship awarded by the Institute for Advanced Study in Princeton.

1993 (Spring): Fellowship awarded by the Mathematical Sciences Research Institute in Berkeley.

**INVITED TALKS (1983-93):**

- January 1983: American Mathematical Society, Meeting in Denver, CO. Special Session on Number Theory.
- January 1983: University of Colorado, Boulder, CO, Number Theory Seminar.
- April 1983: American Mathematical Society Meeting in New York City, Special Session on Number Theory.
- July 1983: University of Geneva, Geneva Switzerland, Lecture Series on Diophantine Approximation.
- July 1983: Journees Arithmetiques, Conference in The Netherlands.
- June 1984: Analytic Number Theory Conference, Oklahoma State University, Stillwater, Oklahoma.
- July 1984: AMS Summer Research Conference, Diophantine Problems, Bowdoin College, Brunswick, Maine.
- December 1984: West Coast Number Theory Conference, Pacific Grove, California.
- July 1985: Symposium on Analytic Number Theory & Diophantine Problems, Imperial College, London, England.
- February 1986: The Institute for Advanced Study, Princeton, New Jersey, Number Theory Seminar.
- May 1986: Henri Poincare Institute & the University of Paris, Paris, France, Number Theory Seminar.
- June 1986: University of Ulm, Ulm, Germany, Colloquium.
- June 1986: University of Gottingen, Gottingen, Germany, Colloquium.
- June 1986: Henri Poincare Institute & the University of Paris, Paris, France, Number Theory Seminar.
- July 1986: University of Geneva, Geneva, Switzerland, Colloquium.
- July 1986: Symposium on Transcendental Number Theory, University of Durham, Durham, England.
- February 1987: CUNY Graduate Center, New York Number Theory Seminar.

- June 1987: Symposium in Number Theory, Trace Formulas and Discrete Groups (in honor of A. Selberg), Oslo, Norway.
- November 1987: Columbia University, Number Theory Seminar.
- March 1988: Conference on Diophantine Approximations, Oberwolfach, Germany.
- April 1988: University of California at Santa Barbara, Number Theory Seminar.
- December 1988: West Coast Number Theory Conference, Las Vegas, Nevada.
- March 1989: University of Colorado, Boulder, Colorado, Number Theory Seminar.
- April 1989: University of Illinois, Urbana, Illinois, Analytic Number Theory Conference.
- August 1989: Second Conference of the Canadian Number Theory Association, University of British Columbia, Vancouver, Canada, Special Session on Diophantine Approximation.
- September 1989: Symposium on Analytic Number Theory, Amalfi, Italy.
- October 1990: Workshop on Diophantine Approximation and Diophantine Equations, University of Leiden, Leiden, The Netherlands.
- June 1991: 3E Cycle Lecturer, University of Geneva, Geneva, Switzerland.
- August 1991: The Third Conference of the Canadian Number Theory Association, Special Session in Diophantine Approximation.
- October 1991: The University of Colorado at Boulder, Colorado, Number Theory Seminar.
- March 1992: Columbia University, Number Theory Seminar.
- September 1992: University of Leiden, The Netherlands, Number Theory Seminar.

- April 1993: University of Washington at Seattle, Number Theory Seminar.
- May 1993: Mathematical Sciences Research Institute in Berkeley, Seminar on Transcendence and Diophantine Problems.
- January 1994: University of Waterloo, Waterloo, Canada, Math Dept., Colloquium.
- May 1995: University of Illinois at Urbana-Champaign, International Conference on Analytic Number Theory.
- April 1996: University of Massachusetts, Five College Number Theory and Geometry Seminar.
- April 1997: University of Colorado at Boulder, Number Theory Seminar.
- May 1998: International conference on Diophantine Problems, Luminy, France
- March 1999: AMS Number Theory Conference at the University of Illinois, Champaign, Illinois

**LIST OF PUBLICATIONS BY JULIA MUELLER**

1. **Prime and zeros in short intervals (jointly with P.X. Gallagher), *J. Reine Angew., Math.*, 303/304, 1978, p. 205-220.**
2. **On the difference between consecutive primes, *Recent Progress in Analytic Number Theory*, Vol. 1, Academic Press, 1981, p. 269-273.**
3. **On the difference between consecutive zeros of the Riemann zeta function, *J. Number theory*, 14, No. 3, 1982, p. 327-331.**
4. **Gaps between consecutive zeta zeros, *Analytic Number Theory*, Springer Lecture Notes, 899, 1981, p. 141-147.**
5. **Arithmetic equivalent of essential simplicity of zeta zeros, *AMS Transactions*, 275, No. 1, 1983, p. 175-183.**
6. **On the Riemann zeta function-gaps between sign change of  $s(t)$ , *Mathematika*, 29, 1983, p. 264-269.**
7. **On Effective Measures of Irrationality for  $\sqrt[n]{a/b}$  and related Numbers (jointly with E. Bombieri), *J. Reine Angew., Math.*, 342, 1983, p. 173-196.**
8. **On Thue's principle and its application, *Proc. of Number Theory*, Springer Verlag Lecture Notes, No. 1068, 1984, p. 158-166.**
9. **On some consequences of Thue's Principle, Comment. *Math Helvetici*, 60, 1985, p. 312-318.**
10. **Remarks on the approximation to an algebraic number by algebraic numbers (jointly with E. Bombieri), *Mich. Math. J.*, 33, 1986, p. 83-93.**
11. **Counting solutions of  $|ax^r - by^r| \leq h$ , *Quart. J. Math. Oxford*, 38, No. 2, 1987, p. 503-513.**
12. **Trinomial Thue equations and inequalities (jointly with W.M. Schmidt), *J. Reine Angew, Math.*, 379, 1987, p. 76-99.**
13. **Thue's equation and a Conjecture of Siegel (jointly with W.M. Schmidt), *Acta Mathematica*, 160, 1988, p. 207-247.**

14. **Good Rational Approximations derived from Thue's inequality, Number Theory, Trace Formulas and Discrete Groups** (*Symposium in honor of Prof. A. Selberg*), Academic Press 1989, p. 399-408.
15. **On the Number of Good Rational Approximations to algebraic numbers** (jointly with W.M. Schmidt), *Proc. of Amer. Math. Soc.*, 106, No. 4, 1989, p. 859-866.
16. **Binomial Thue's equation over function fields**, *Composit. Math.*, 73, 1990, p. 189-197.
17. **On binomial equations over function fields and a Conjecture of Siegel, Analytic Number Theory** (*Proceedings of a Conference in honor Of Paul T. Bateman*), Birkhauser 1990, p. 383-393.
18. **The generalized Fermat equation in function fields** (jointly with E. Bombieri), *J. Number Theory*, 39, No. 3, 1991, p. 339-350.
19. **Applications of the Newton polygon** (jointly with W. M. Schmidt), *Monatsh. J. Math.*, 113, 1992, p. 33-50.
20. **The abc-inequality and the generalized Fermat equation in function fields**, *Acta Arithmetica*, 64, No. 1, 1993, P. 7-18.
21. **A note on Thue's inequality with few coefficients**, *Advances in Number Theory, The Proceedings of CNTA '91*, Clarendon Press, Oxford, 1993, p. 381-389.
22. **Trinominal Equations in Function Fields** (jointly with E. Bombieri), *Asterisque*, 228, 1995, p. 19-40.
23. **The Generalized Thue Inequality** (jointly with W.M Schmidt), *Compositio Mathematica*, 96, 1995, p. 331-344.

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24. **The Unit Equation and the Cluster Principle** (jointly with E. Bombieri and M. Poe), *Acta Arithmetica* LXXIX.4 (1997)
25. **On a conjecture of Siegel** (jointly with E. Bombieri), *Monatsh. J. Math.*, 125, 293-308 (1998)
26. **S-Unit equations in function fields via the abc-theorem**, *Bulletin of the London Mathematical Society*, 32 (2000), 163-170.

27. **Equations in one variable over function fields** ( jointly with E. Bombieri and U. Zannier), Acta Arithmetica, XCIX. 2001, 27-39.
28. **On the zeros of certain Epstein Zeta Functions** ( jointly with E. Bombieri ). Forum Math. , 20, 2008, 359-385.
29. **On the genesis of Robert P. Langlands' conjectures and his letter to Andre Weil.** Bulletin (new Series) of the American mathematical society, s 0273-0979(xx)0000-0 2018.