

**CURRICULUM VITAE**  
**DAQING WAN**  
dwan@math.uci.edu

**FIELDS OF RESEARCH**

Number Theory, Arithmetic Geometry, Finite Fields and Applications

**EDUCATION**

- 8/86–7/91     **University of Washington, Seattle**  
Ph. D. in Mathematics, 1991
- 9/82– 8/86     **Sichuan University, P. R. China**  
M.S. in Mathematics, 1986
- 9/78–7/82     **Chengdu Institute of Geology, P. R. China**  
B.S. in Mathematics, 1982

**EMPLOYMENT EXPERIENCE**

- 7/2001-     **Professor of Mathematics**, University of California, Irvine
- 4/2008-     **Oversea Distinguished Visiting Professor**, Institute of Mathematics, Beijing
- 7-9/02-05     **Research Professor**, Chinese Academy of Sciences, Beijing
- 8/00-12/00     **Research Professor**, Mathematical Sciences Research Institute, Berkeley
- 7/97-6/01     **Associate Professor of Mathematics**, University of California, Irvine
- 6/98-7/98     **Invited Professor**, Institut Mathematique de Rennes (France)
- 8/95-6/97     **Assistant Professor of Mathematics**, Penn State University
- 8/91 –8/95     **Assistant Professor of Mathematics**, University of Nevada, Las Vegas
- 8/93 –8/94     **Member**, Institute for Advanced Study, Princeton

**RESEARCH GRANTS and AWARDS**

- 1993-2011     **National Science Foundation Grants**, USA
- 2002-2005     **One Hundred Talent Project**, Chinese Academy of Sciences
- 2002-2005     **Oversea Distinguished Youth Grant**, Ministry of Education, China
- 2001     **Morningside Silver Medal of Mathematics**, ICCM II (Taipei).
- 1994     **Barrick Scholar Faculty Award**, UNLV (Las Vegas).

## SELECTED PUBLICATIONS

1. Newton polygons of zeta functions and  $L$ -functions, **Annals of Mathematics**, 137 (1993), 249-293.
2. Meromorphic continuation of  $L$ -functions of  $p$ -adic representations, **Annals of Mathematics**, 143(1996), 469-498.
3. Dwork's conjecture on unit root zeta functions, **Annals of Mathematics**, 150(1999), 867-927.
4. Dimension variation of classical and  $p$ -adic modular forms, **Inventiones Mathematicae**, 133(1998), 2, 449-463.
5.  $L$ -functions of  $\varphi$ -sheaves and Drinfeld modules, **J. Amer. Math. Soc.**, 9(1996), no.3, 755-781. (joint with Y. Taguchi)
6. Higher rank case of Dwork's conjecture, **J. Amer. Math. Soc.**, 13(2000), 807-852.
7. Rank one case of Dwork's conjecture, **J. Amer. Math. Soc.**, 13(2000), 853-908.
8. Variation of  $p$ -adic Newton polygons for  $L$ -functions of exponential sums, **Asian J. Math.**, Vol. 8, 3(2004), 427-474.
9. On the list and bounded distance decodibility of Reed-Solomon codes, **SIAM J. Computing**, 37(2007), No.1., 195-207. (joint with Q. Cheng)
10. Modular counting of rational points over finite fields, **Foundations of Computational Mathematics**, to appear, 2008.

## SOME RECENT LECTURES

1. Algorithmic Number Theory Workshop, Hongkong, June, 2008.
2.  $P$ -adic Aspects of Differential Equations, Laussane, November, 2007.
3. Asia Conference in Arithmetic Geometry, Seoul, September, 2007.
4. NATO Advanced Summer School, Göttingen, July, 2007.
5. Number Theory and Related Topics, Hanoi, Vietnam, December, 2006.
6. Polynomials over Finite Fields, Banff Center, Canada, November, 2006.
7. Algorithms in Algebraic Geometry, IMA, Minneapolis, September, 2006.
8. Joint Columbia-NYU-Courant Number Theory Seminar, February, 2005.
9. Kuwait Foundation Lecture, Cambridge University, February, 2004.
10. Arizona Winter School, Number Theory and Physics, Austin, March, 2004.

## FEATURED REVIEWS IN MR

Publications 3, 6, 7 above are **Featured Reviews** in Math Reviews.

## Ph.D. STUDENTS

1. Roger Yang, 1997-2001 (UC Irvine), Pasadena City College.
2. Douglass Haessig, 2001 – 2005 (UC Irvine), University of Rochester.
3. Chi-Fai Wong, 2002 –2008 (UC Irvine).
4. Tim Choi, 2003 –2009 (UC Irvine).
5. Phong Le, 2005–2009(UC Irvine).

## ORGANIZING/PROGRAM COMMITTEES

- 07a Number Theory Conference In Honor of Prof. Sun's 70-th birthday, Chengdu, September, 2007.
- 07b Workshop on L-functions and Related Topics, Morningside Center of Mathematics, Beijing, August, 2007.
- 06a Algorithms in Algebraic Geometry, IMA, Minnesota, 2006-2007.
- 05a Arithmetic Geometry Program, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, June-September, 2005.
- 05b Workshop On  $p$ -adic Galois Representations, Morningside Center of Mathematics, Beijing, January, 2005.
- 04a Arithmetic Geometry Program, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, June-September, 2004.
- 04a Number Theory and Algebraic Geometry Conference, Sichuan University, Chengdu, June, 2004.
- 03a Workshop on L-functions, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, December, 2003.
- 03b Arithmetic Geometry Program, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, June-September, 2003.
- 02a Workshop on Elliptic and Hyperelliptic Cryptography, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, December, 2002.
- 02b Number Theory Program, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, June-September, 2002.
- 02c Number Theory and Arithmetic Geometry, ICM Satellite conference, August, Weihai, China, 2002.
- 00 International Workshop In Honor of Professor Chao Ko's 90-th Birthday, Chengdu.
- 97 AMS Summer Research Conference on Finite Fields, Seattle.
- 93 Second International Conference on Finite Fields, Las Vegas.

## BOOK REVIEWS

- 94 A combined book review for six books on finite fields, Bull. Amer. Math. Soc., 30(1994), 284-290.

## EDITORIAL BOARD

Finite Fields and Their Applications (since 1997)

Journal of Number Theory (since July 2004)

Editor: Special Issue Dedicated to Professor Chao Ko's 90-th Birthday

## INVITED TALKS AND VISITS

- 09a Counting Points on Varieties, Leiden, April, 2009.
- 08a Graduate Number Theory Summer School, Hefei, July-August, 2008.
- 08b Colloquium, Capital Normal University, Beijing, August, 2008.
- 08c Ergodic Number Theory Seminar, Institute of Mathematics, Beijing, July, 2008.
- 08d Algorithmic Number Theory Workshop, Hongkong, June, 2008.
- 08e  $P$ -adic Modular Form Seminar, UCSD, May, 2008.
- 08f Chern's Institute, Nankai University, March, 2008.
- 07a ICCM, Hangzhou, December, 2007.
- 07b Number Theory Seminar, UT Austin, November, 2007.
- 07c  $P$ -adic Aspects of Differential Equations, Switzerland, November, 2007.
- 07d Asia Conference in Arithmetic Geometry, Seoul, September, 2007.
- 07e Colloquium, China East Normal University, September, 2007.
- 07f NATO Advanced Summer School, Göttingen, June-July, 2007.
- 06a Number Theory and Related Topics, Hanoi, Vietnam, December, 2006.
- 06b Polynomials over Finite Fields, Banff Center, Canada, November, 2006.
- 06c Algorithms in Algebraic Geometry, IMA, Minneapolis, September, 2006.
- 06d Fourth China-Japan Number Theory Conference, Shangdon University, August, 2006.
- 06e Southern California Number Theory Day, UCSD, January, 2006.
- 05a Number Theory Seminar, UCLA, October, 2005.
- 05b Colloquium, Beijing Normal University, September, 2005.
- 05c Arithmetic Geometry and Automorphic Forms,  
Nankai Institute of Mathematics, August, 2005.
- 05d Summer School in Applied Mathematics,  
Shanghai Jiao-Tong University, July, 2005.
- 05e Number Theory Mini-Course, Shanghai Institute for Advanced Study,  
Chinese Science and Technology University, Shanghai, March, 2005.
- 05f Colloquium, Sichuan University, Chengdu, March, 2005.
- 05g Joint Columbia-NYU-Courant Number Theory Seminar, February, 2005.
- 05h Colloquium, Shanghai Jiao-Tong University, Shanghai, January, 2005.
- 04a Colloquium, Chinese Academy of Sciences, Beijing, September, 2004.
- 04b Arithmetic geometry workshop, MCM, Beijing, July, 2004.
- 04c A. Borel Conference, Zhejiang University, Hangzhou, July, 2004.
- 04d Number Theory and Algebraic Geometry, Sichuan University, Chengdu, June, 2004.
- 04e Number Theory and Physics, Arizona Winter School,  
A series of four lectures, Austin, March, 2004.

- 04f University of Oxford, England, February, 2004.
- 04g University of Cambridge, Number Theory Seminar, February, 2004.
- 04h University of Cambridge, Kuwait Lecture, February, 2004.
- 04i Number Theory Seminar, HP Labs, Palo Alto, February, 2004.
- 03a Arithmetic Geometry and Number Theory, Princeton, December, 2003.
- 03b BIRS Workshop on p-adic variation of motives, Canada, December, 2003.
- 03c Arithmetic geometry workshop, Beijing, July, 2003.
- 03d Number Theory Seminar, California Institute of Technology, May, 2003.
- 03e Future directions in algorithmic number theory, AIM (Palo Alto), March, 2003.
- 02a Morningside Center of Mathematics, Beijing, December, 2002.
- 02b Colloquium, Beijing Normal University, December, 2002.
- 02c Colloquium, UC Riverside, October, 2002.
- 02d Colloquium, UCLA, October, 2002.
- 02e Colloquium, Beijing University, September, 2002.
- 02f Number Theory and Arithmetic Geometry Conference  
(Weihai, Shandong University), August 14-18, 2002.
- 02g Colloquium, Tsinghua University, Beijing, August, 2002.
- 02h Colloquium, Nankai University, Tianjian, August, 2002.
- 02i National High School Summer Math Camp (3 lectures),  
Sichuan University, Chengdu, July 20-July 30, 2002.
- 02j Workshop for L-functions and p-adic Methods,  
Beijing, June 24-July 10, 2002.
- 02k Zeta Functions and Associated Riemann Hypothesis,  
Courant, NYU, May 28-June 1, 2002.
- 02l Canadian Number Theory Conference, May 19-26, Montreal, 2002.
- 02m Hong Kong University of Science and Technology, Colloquium, March, 2002.
- 02n Colloquium, UC Santa Barbara, February 21, 2002.
- 01a ICCM, Plenary Speaker, Taipei, December, 2001.
- 01b L-functions from algebraic geometry (Main speaker, three lectures),  
University of Leiden (September, 2001).
- 01c The Dutch Intercity Number Theory Seminar (two lectures),  
University of Leiden (September, 2001).
- 01d The Dutch Intercity Number Theory Seminar (two lectures),  
University of Utrecht (August, 2001).
- 01e Arithmetic Algebraic Geometry Seminar (four lectures),  
Institute of Mathematics, Beijing (July, 2001).

- 01f Conference on Geometric Aspects of Dwork's Theory,  
Bressanone, Italy (July, 2001)
- 01g Dwork's semester (three lectures), University of Padova,  
Italy (June, 2001).
- 01h UCLA, Colloquium, January, 2001.
- 00a MSRI-Evans Lecture, UC Berkeley, September, 2000.
- 00b Number Theory Seminar, UC Berkeley, November, 2000.
- 00c Algorithmic Number Theory Workshop, MSRI, Berkeley, August, 2000.
- 00d International Workshop in honor of Professor Chao Ko's 90-th Birthday,  
Chengdu, July 20-24, 2000.
- 00e International Conference on Foundation of Computational Mathematics  
In honor of Steve Smale's 70-th Birthday, Hongkong, July 13-17, 2000.
- 00f Morningside Center of Mathematics (four lectures), Beijing, June-July, 2000.
- 99a MIT Number Theory Seminar (11/12/99)
- 99b Harvard Number Theory Seminar (11/10/99)
- 99c Max-Planck Institute fur Mathematik (Germany, August 7-14, 1999)
- 99d Fifth International Conference on Finite Fields (Germany, August 1-7, 1999)
- 99e Morningside Center of Mathematics (Beijing, June 18 - July 28, 1999)
- 99f University of California at Berkeley (Colloquium and Number Theory Seminar,  
February 18-20, 1999)
- 99g Sogang University Minicourse in Number Theory (Seoul, Korea, January 3-9, 1999)
- 98a Penn State University (Colloquium and Seminar, September 3-6, 1998)
- 98b Columbia University (September 1-2, 1998)
- 98c Harvard University (Four lectures on Dwork's conjectures in  
Yau's seminar, August 1 - 31, 1998)
- 98d University of Minnesota (July 16 - 23, 1998)
- 98e Institut Mathematique de Rennes (three lectures on Dwork conjecture,  
France, June 9 - July 9, 1998)
- 98f UC at Santa Barbara (Arithmetic Geometry Seminar, May, 1998)
- 98g UC at Berkeley (Number Theory Seminar, March, 1998)
- 98h American Institute of Mathematics (Colloquium, Palo Alto, March, 1998)
- 97a Fourth International Conference on Finite Fields (Waterloo,  
Canada, August, 1997)
- 97b AMS Summer Research Conference on Finite Fields (Seattle, July, 1997)
- 97c Morningside Center of Mathematics (four lectures on L-functions over finite fields,  
Beijing, June-July, 1997)
- 97d Institute of Mathematics, Chinese Academy of Sciences (Colloquium),  
Beijing, June, 1997.

- 97e Tsinghua University (Algebraic Geometry Seminar, Beijing, June, 1997)
- 97f Sichuan University (Colloquium, Chengdu, July, 1997)
- 97g Coefficient Problems in Crystalline and Rigid Cohomology  
(Institut Henri Poincare, Paris, April, 1997)
- 97h Columbia University (Number Theory Seminar, April, 1997)
- 97i University of Washington (Colloquium and Seminar, April, 1997)
- 97j University of Georgia (Colloquium, March, 1997)
- 97k University of California at Irvine (Colloquium, March, 1997)
- 97l University of Illinois at Urbana-Champaign (Colloquium, January, 1997)
- 97m University of Michigan (Number Theory Seminar, January, 1997)
- 97n Workshop on Finite Fields: Theory and Computations  
Oberwolfach, January, 1997.
- 96a Sichuan University (Six lectures on finite fields, June, 1996)
- 96b University of Minnesota (Colloquium, May, 1996)
- 95a Purdue University (Colloquium, November, 1995)
- 95b Third International Conference on Finite Fields (Scotland, July, 1995)
- 95c Institute des Hautes Etudes Scientifiques (France, 1995)
- 95d University of Leuven (Belgium, 1995)
- 95e International Conference on Analytic Number Theory  
(H. Halberstam's retirement, Champaign-Urbana, May, 1995)
- 94a Mathematics Research Institute (Ohio State University, May, 1994)
- 94b Princeton University (Algebra Seminar, February, 1994)
- 94c Boston University (Colloquium, January, 1994)
- 93a Boston University (Number Theory Seminar, November, 1993)
- 93b University of Southern California (Number Theory Seminar, October, 1993)
- 93c University of California at Irvine (Colloquium, October, 1993)
- 93d Second International Conference on Finite Fields (Las Vegas, August, 1993)
- 93e University of Minnesota (Number Theory Seminar, May, 1993)
- 93f Workshop on Finite and Local Fields (Johns Hopkins University, April, 1993)
- 92a Special Session on Topology of Affine Hypersurfaces and Number Theory,  
AMS Central Section Meeting, Dayton, Ohio (October, 1992)
- 92b University of California at Berkeley (Number Theory Seminar, January, 1992).
- 91a First International Finite Field Conference  
(Special Session, Las Vegas, August, 1991)
- 91b Workshop on Arithmetic of Function Fields (Ohio State University, June, 1991)
- 91c Special Session on Number Theory and Algebraic Geometry,  
AMS Central Section Meeting, Muncie, Indiana (October, 1989).

## PUBLICATIONS

1. On a problem of Niederreiter and Robinson about finite fields,  
**Journal of Australian Mathematical Society** (Series A) 41(1986), 336-338.
2. On a conjecture of Carlitz,  
**Journal of Australian Mathematical Society** (Series A) 43(1987), 375-384.
3. Permutation polynomials over finite fields,  
**Acta Mathematicae. Sinica**, New Series, 3(1987), 1-5.
4. (with Sun Qi) On the solvability of the equation  $\sum_{i=1}^n x_i/d_i \equiv 0 \pmod{1}$ ,  
**Proceedings of American Mathematical Society**, 100(1987), 220-224.
5. Some arithmetic properties of the minimal polynomials of Gauss sums,  
**Proceedings of American Mathematical Society**, 100(1987), 225-228.
6. Zeros of diagonal equations over finite fields,  
**Proceedings of American Mathematical Society**, 103(1988), 1049-1052.
7. An elementary proof of a theorem of Katz,  
**American Journal of Mathematics**, 111 (1989), 1-8.
8. Factoring multivariate polynomials over large finite fields,  
**Mathematics of Computation**, 54(1990), 755-770.
9. On the Lang-Trotter conjecture,  
**Journal of Number Theory**, 35(1990), 247-268.
10. Permutation polynomials and resolution of singularities over finite fields,  
**Proceedings of American Mathematical Society**, 110(1990), 303-309.
11. (with Sun Qi) On the diophantine equation  $\sum_{i=1}^n x_i/d_i \equiv 0 \pmod{1}$ ,  
**Proceedings of American Mathematical Society**, 112(1991), 25-29.
12. (with R. Lidl)  
Permutation polynomials of the form  $x^r f(x^{\frac{q-1}{d}})$  and their group structure,  
**Monatsh Mathematicae**, 112(1991), 149-163.
13. Zeta functions of Hilbert sets over finite fields,  
**Journal für die Reiner und Angewandte Mathematik**, 427(1992), 193-207.
14. Zeta function of algebraic cycles over finite fields,  
**Manuscripta Mathematica**, 74(1992), 413-444.
15. A  $p$ -adic lifting lemma and its applications to permutation polynomials,  
**Lecture Notes in Pure and Applied Math.**, 141(1992), 209-216.
16. A generalization of the Carlitz conjecture,  
**Lecture Notes in Pure and Applied Math.**, 141(1992), 431-432.
17. Heights and zeta functions in function fields,  
**Proceedings of the Workshop on Arithmetic of Function Fields**, 1992,  
455-463.
18. Newton polygons and congruence decompositions of  $L$ -functions,  
**Contemporary Mathematics**, 133(1992), 221-241.
19. (with J.S. Shiue and C.S. Chen) Value sets of polynomials over finite fields,  
**Proceedings of American Mathematical Society**, 119(1993), 711-717.
20. Newton polygons of zeta functions and  $L$ -functions,  
**Annals of Mathematics**, 137 (1993), 249-293.

21. Permutation binomials over finite fields,  
**Acta Mathematicae. Sinica**, 10(1994), 30-35.
22. A classification conjecture about certain permutation polynomials,  
**Contemporary Mathematics**, Volume 168 (1994), 401-402.
23. A Chevalley-Waring proof of the Ax-Katz theorem and character sums,  
**Proceedings of American Mathematical Society**, 123(1995), 45-54.
24. (with G.L Mullen and J.S. Shiue)  
The number of permutation polynomials of the form  $f(x) + cx$ ,  
**Proceedings of Edingburgh Mathematical Society**, 38(1995), 133-149.
25. Noetherian subrings of power series rings,  
**Proceedings of American Mathematical Society**, 123(1995), 1681-1686.
26. Minimal polynomials and distinctness of Kloosterman sums,  
**Finite Fields & Applications**, 1(1995), 189-203.
27. On the Riemann hypothesis for the characteristic  $p$  zeta function,  
**Journal of Number Theory**, 58(1996), 196-212.
28. Meromorphic continuation of L-functions of  $p$ -adic representations,  
**Annals of Mathematics**, 143(1996), 469-498.
29. (with Y. Taguchi) L-functions of  $\varphi$ -sheaves and Drinfeld modules,  
**Journal of American Mathematical Society**, 9(1996), no.3, 755-781.
30. Global zeta functions over number fields and function fields,  
**Proceedings of a Conference in Honor of Heini Halberstam**,  
Birkhäuser, Volume 2, 1996, 767-775.
31. L-functions of algebraic varieties over finite fields:  
**Proceedings of the Third International Conference on Finite Fields**,  
Cambridge University Press, 1996, 379-393.
32. (with Robert Guralnick)  
The number of fixed point free elements in a transitive group,  
**Israel Journal of Mathematics**, 101(1997), 255-287.
33. (with Y. Taguchi)  
Entireness of L-functions of  $\varphi$ -sheaves on affine complete intersections,  
**Journal of Number Theory**, 63(1997), no.1, 170-179.
34. Generators and irreducible polynomials over finite fields,  
**Mathematics of Computations**, 66(1997), no. 219, 1195-1212.
35. Dimension variation of classical and  $p$ -adic modular forms,  
**Inventiones Mathematicae**, 133(1998), 2, 449-463.
36. Computing zeta functions over a finite field,  
**Contemporary Mathematics**, Vol 225 (1999), 131-142.
37. A quick introduction to Dwork's conjecture,  
**Contemporary Mathematics**, Vol 245(1999), 147-163.
38. Dwork's conjecture on unit root zeta functions,  
**Annals of Mathematics**, 150(1999), 867-927.

39. Pure L-functions from algebraic geometry over finite fields,  
in **Finite Fields and Applications**, Eds. D. Jungnickel and H. Niederreiter,  
2001, 437-461.
40. An introduction to the theory of Newton polygons for  
L-functions of exponential sums,  
**Proceedings of Sogang University Minicourses in Number Theory**,  
editor: D.S. Kim, 2003, 23-65.
41. Poles of zeta functions of complete intersections,  
**Chinese Ann. Math.**, Vol 21., 2(2000), 187-200.
42. Higher rank case of Dwork's conjecture,  
**J. Amer. Math. Soc.**, 13(2000), 807-852.
43. Rank one case of Dwork's conjecture,  
**J. Amer. Math. Soc.**, 13(2000), 853-908.
44. Partial zeta functions of algebraic varieties over finite fields,  
**Finite Fields & Applications**, 7(2001), 238-251.
45. (with A. Lauder) Computing zeta functions of Artin-Schreier curves  
over finite fields, I,  
**LMS J. Comput. Math.**, Volume 5 (2002), 34-55.
46. Algorithmic theory of zeta functions over finite fields,  
**MSRI Number Theory Workshop Proceedings**, to appear.
47. (with A. Lauder) Counting rational points on varieties over finite fields,  
**MSRI Number Theory Workshop Proceedings**, to appear.
48. (with Lei Fu) Total degree bounds for Artin L-functions and  
partial zeta functions,  
**Math. Research Letter**, 10(2003), 33-41.
49. (with H. Esnault) Hodge type of exotic cohomology of complete intersections,  
**C.R. Acad. Paris, Ser. I** 336(2003), 153-157.
50. Rationality of partial zeta functions,  
**Indagationes Mathematicae**, New Ser. 14(2003), 285-292.
51. Variation of p-adic Newton polygons for L-functions of exponential sums,  
**Asian J. Math.**, Vol. 8, 3(2004), 427-474.
52. (with A. Lauder) Computing zeta functions of Artin-Schreier curves  
over finite fields, II,  
**Journal of Complexity**, 20(2004), 331-349.
53. (with D. Haessig) On the p-adic Riemann hypothesis for zeta functions of divisors,  
**J. Number Theory**, 104(2004), 335-352.
54. (with L. Fu) Moment L-functions, partial L-functions and partial exponential sums,  
**Math. Ann.**, 328(2004), 193-228.
55. Geometric moment zeta functions,  
in **Geometric Aspects of Dwork Theory**,  
Walter de Gruyter, 2004, Vol II., 1113-1129.

56. (with Q. Cheng)  
On the list and bounded distance decodibility of Reed-Solomon codes,  
**Proc. 45th Annual IEEE Symp. on Foundations of Computer Science,**  
(FOCS) 2004, 335-341.
57. (with L. Fu) L-functions for symmetric products of Kloosterman sums,  
**Crelle's Journal**, 589(2005), 79-103.
58. Arithmetic mirror symmetry,  
**Quarterly Journal of Pure and Applied Math**, 1(2005), no.2, 369-378.
59. Combinatorial congruences and  $\psi$ -operators,  
**Finite Fields & Applications**, 12(2006), 693-703.
60. (with L. Fu) Mirror congruence for rational points on Calabi-Yau varieties,  
**Asian J. Math.**, 10(2006), 1-10.
61. Mirror symmetry for zeta functions, in **Mirror Symmetry V**,  
AMS/IP Advanced Studies in Mathematics, Vol. 38, 2007, 159-184.
62. (with Q. Cheng)  
On the list and bounded distance decodibility of Reed-Solomon codes,  
**SIAM J. Computing**, 37(2007), No.1., 195-207. 335-341.
63. (with Z-W. Sun) On Fleck Quotients,  
**Acta Arith.**, 127(2007), no. 4, 337-363.
64. (with Antonio Rojas-Leon)  
Moment zeta functions for toric Calabi-Yau hypersurfaces,  
**Communications in Number Theory and Physics**,  
Vol.1, No.3 (2007), 539-578.
65. (with Z-W. Sun) Lucas type congruences for cyclotomic  $\psi$ -coefficients,  
**International Journal of Number Theory**, 4(2008), no.2, 155-170.
66. (with L. Fu)  
Trivial factors for L-functions of symmetric products of Kloosterman sheaves,  
**Finite Fields & Applications**, V. 14, 2(2008), 549-570.
67. Modular counting of rational points over finite fields,  
**Foundations of Computational Mathematics**, to appear, 2008.
68. (with Shuhong Gao and Mingsheng Wang)  
Primary decomposition of zero-dimensional ideals over finite fields,  
**Mathematics of Computation**, to appear.
69. (with Q. Cheng)  
Complexity of decoding positive-rate Reed-Solomon codes,  
**Proceedings of ICALP08**, 2008.
70. (with J. Li)  
On the subset sum problem over finite fields.  
**Finite Fields & Applications**, to appear.
71. (with L. Fu)  
L-functions of symmetric products of the Kloosterman sheaf over  $Z$ .  
**Mathematische Annalen**, to appear.
72. (with M. Moisio)  
On Katz's bound for the number of elements with given trace and norm.  
**Crelle's Journal**, to appear.