CURRICULUM VITAE

DAQING WAN
dwan@math.uci.edu

FIELDS OF RESEARCH

Number Theory, Arithmetic Geometry, Algorithms and Complexity

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 EXPERIENCES

7/2001-	**Professor of Mathematics**, University of California, Irvine
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

HONORS, GRANTS and AWARDS

1993-2023	**National Science Foundation Research Grants**, USA
2014-2015	**Simons Fellowship**, USA
2010	**Chancellor's Award for Excellence in Undergraduate Research**, UC Irvine
2002-2005	**Oversea Distinguished Youth Grant**, Ministry of Education, China
2001	**Mornigside Silver Medal of Mathematics**, ICCM II (Taipei).
1994	**Barrick Scholar Faculty Award**, UNLV (Las Vegas).

SELECTED PUBLICATIONS IN MATHEMATICS

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. (with Y. Taguchi) L-functions of φ-sheaves and Drinfeld modules,
J. Amer. Math. Soc., 9(1996), no.3, 755-781.
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. (with L. Fu) L-functions of symmetric products of the Kloosterman sheaf over Z,
Mathematishe Annalen, 342(2008), No. 2, 387-404.
9. (with C.L. Liu) T-adic exponential sums over finite fields,
Algebra & Number Theory, Vol. 3, 5(2009), 489-509.
10. (with A. Rojas-Leon) Improvements of the Weil bound for Artin-Schreier curves,
Mathematishe Annalen, 351(2011), No.2, 417-442.
11. (with C. Davis and L. Xiao) Newton slopes for Artin-Schreier-Witt towers,
Mathematishe Annalen, 364 (2016), no. 3, 1451-1468.
12. (with L. Xiao and J. Zhang) Slopes of eigencurves over boundary disks,
Mathematische Annalen, 369 (2017), no.1-2, 487-537.
13. (with R. Liu and L. Xiao) The eigencurve over the boundary of weight space,
Duke Mathematical Journal, 166 (2017), no.9, 1739-1787.
14. (with Lei Fu, Peigen Li and Hao Zhang), p-Adic GKZ hypergeometric complex.
Mathematische Annalen, 2023.

FEATURED REVIEWS IN MR

Publications 3, 5, 7 above are **Featured Reviews** in Math Reviews.

SELECTED PUBLICATIONS IN COMPUTER SCIENCE

1. (with A. Lauder)
   Computing zeta functions of Artin-Schreier curves over finite fields, I,
   LMS J. Computation & Math., Volume 5 (2002), 34-55.
2. (with A. Lauder)
   Computing zeta functions of Artin-Schreier curves over finite fields, II,
   Journal of Complexity, 20(2004), 331-349.
3. (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.
4. (with Q. Cheng) Complexity of decoding positive-rate Reed-Solomon codes,
   Proceedings of ICALP08, 2008.
5. Modular counting of rational points over finite fields,
   Foundations of Computational Mathematics, 8(2008), No. 5, 597-605.
6. (with Shuhong Gao and Mingsheng Wang)
   Primary decomposition of zero-dimensional ideals over finite fields,
   Mathematics of Computation, 78(2009), No.265, 509-521.
7. (with Q. Cheng) A deterministic reduction for the gap minimun distance problem,
   STOC (41th ACM Symposium on Theory of Computing), 2009, 33-38.
8. (with Qi Cheng) Complexity of decoding positive rate Reed-Solomon codes,
   IEEE Trans & Inform. Theory, 56(2010), No.10, 5217-5222.
9. (with Q. Cheng and S. Gao)
   Constructing high order elements through subspace polynomials.
   SODA2012, ACM-SIAM Symposium on Discrete Algorithms, 2012, 1457-1463.
10. (with Q. Cheng and Joshua Hill) Counting value sets: algorithms and complexity.
    ANTS 2012, Proceedings of the Tenth Algorithmic Number Theory Symposium,
    The Open Book Series, 1(2013), 235-248.
11. (with Q. Cheng and J. Zhuang),
    Traps to the BGJT-Algorithm for Discrete Logarithms,
    ANTS 2014, LMS Journal of Computation and Mathematics, 17 (2014), 218-229.
12. (with Q. Cheng, S. Gao and J.M. Rojas)
    Counting roots for polynomials modulo prime powers,
    ANTS 2018 (13-th Algorithmic Number Theory Symposium),
    The Open Book Series, 2 (2019), 191-205.
13. (with J. Li) Distance distribution in Reed-Solomon codes,
    IEEE Transactions on Information Theory, Vol. 66, 5 (2020), 2743-2750.
14. (with J. Zhang and K. Kaipa) Deep holes of projective Reed-Solomon codes,
    IEEE Transactions on Information Theory, Vol. 66, 4 (2020), 2392-2401.
15. (with Qi Cheng, Maurice Rojas),
    Computing zeta functions of large polynomial systems over finite fields.
    Journal of Complexity, Vol. 73, 2022, 101681.

SELECTED LECTURES

0. Kwan Chao-Chih Distinguished Lecture, Institute of System Science, Sept., 2020.
1. Distinguished Lecture in Number Theory, Xi'an Jiaotong University, August, 2018.
2. Bay Area Number Theory Day, UC Berkeley, April, 2016.
3. Modular Forms in String Theory, Toronto, September, 2013.
4. Effective Methods in p-adic Cohomology, Oxford University, March, 2010.
5. Counting Points on Varieties, Leiden, April, 2009.
6. P-adic Aspects of Differential Equations, Laussane, November, 2007.
7. NATO Advanced Summer School, Göttingen, July, 2007.
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.

LONG TERM VISITING SCHOLARS

1. Zhi-Wei Sun (2006-2007).
2. Guizhen Zhu (2011-2012).
3. Hai Xiong (2012-2013).
4. Jun Zhang (2013-2014).
5. Liping Wang (2015-2017).
6. Weiqiong Wang (2016-2017).
7. Hao Zhang (2016-2017).
8. Haiyang Zhou (2016-2017).
9. Xin Lin (2019-2020).

POST-DOCS

1. Antonio Rojas-Leon (2006-2009).
2. Chris Davis (2011-2014).
3. Michiel Kosters (2015-2018).
4. Joe Kramer-Miller (2018-2021).

Ph.D. STUDENTS

1. Roger Yang, 2001 (UC Irvine).
2. Douglass Haessig, 2005 (UC Irvine).
3. Chi-Fai Wong, 2008 (UC Irvine).
4. Phong Le, 2009 (UC Irvine).
5. Timothy Choi, 2013 (UC Irvine).
6. Joshua Hill, 2014 (UC Irvine).
7. Luke Smith, 2015 (UC Irvine).
8. Matt Keti, 2015 (UC Irvine).
9. Michael Porter, 2018 (UC Irvine).
10. Jennifer Nguyen, 2019 (UC Irvine).
11. James Upton, 2020 (UC Irvine).
12. Chao Chen, 2021 (UC Irvine).
13. Sichen Tang, 2022 (UC Irvine).

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

ORGANIZING/PROGRAM COMMITTEES

18a Conference on Finite Fields, Zhengdin, China, May, 2018.

17a First Annual ICCM meeting, Guangzhou, December, 2017.

17b Conference on Finite Fields, Beijing, November, 2017.

16a Conference on Finite Fields, Nankai University, June, 2016.

14a Conference on Finite Fields, Beijing, June, 2014.

12a Conference on Finite Fields, Beijing, June, 2012.

07a Number Theory Conference In Honor of Prof. Sun's 70-th bithday, Chengdu, September, 2007.

07b Workshop on L-functions and Related Topics, 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.

SOME INVITED TALKS AND VISITS

20a Kwan Chao-Chih Distinguished Lecture, Institute of System Science, Sept., 2020.

20b Upstate New York Number Theory Colloquium, August, 2020.

19a Shanghai Jiaotong University, December, 2019.

19b Nanjing University and Nanjing Normal University, March, 2019.

18a Shanghai Jiaotong University and Tonji University, December, 2018.

18b Northwest University and Xi'an Jiaotong University, Xi'an, August, 2018.

18c Westlake Institute For Advanced Study, Hangzhou, July, 2018.

18d Yau's Mathematical Center, Tsinghua University, Beijing, July, 2018.

18e RTG Early Career Faculty Research Mentor, Clemson University, June 2018.

18f UCLA Number Theory Seminar, May, 2018.

18g Caltech Number Theory Seminar, May, 2018.

18h Peking University Number Theory Seminar, March, 2018.

18i University of South Florida, Colloquium, February, 2018.

17a First Annual ICCM Conference, Guangzhou, December, 2017.

17b AMS Special Session at Buffalo, September, 2017.

17c Chang'an University, Northwest University, Xi'dian, Xi'an, June-July, 2017.

17d Sichuan University, Chengdu, September, 2017.

17e Southern California Discrete Mathematics Symposium, UCLA, May, 2017.

17f SQuaRE at AIM, San Jose, May, 2017.

17g Colloquium and Seminar at Beijing University and MCM, March, 2017.

16a Ningbo University, December, 2016.

16b Shanghai Jiaoda and China East Normal University, December, 2016.

16c Morningside Center of Mathematics, Beijing, July, 2016.

16d Finite Field Conference, Nankai University, June, 2016.

16e Bay Area Number Theory Day, UC Berkeley, April, 2016.

16f Number Theory Seminar, China East Normal University, March, 2016.

16g Combinatorics Seminar, Shanghai Jiaotong University, March, 2016.

15a Number Theory Seminar, Peking University, December, 2015.

15b Number Theory Seminar, Stanford University, October, 2015.

14c SQuaRE at AIM, Palo Alto, August, 2015.

15d Number Theory Seminar, MCM, Beijing, July, 2015.

15e Number Theory Seminar, Louisiana State University, Baton Range, March, 2015.

15f Number Theory Seminar, Texas A&M, College Station, March, 2015.

15g Complex Analysis Seminar, Rice University, Houston, March, 2015.

14a Third International Conference on Zeta Functions, Mexico, September, 2014.

14b SQuaRE at AIM, Palo Alto, August, 2014.

14c Beijing International Center of Mathematics, July, 2014.

14d Finite Field Conference, Beijing, June, 2014.

14e Seminars in Fujian Normal Univ., Fuzhou Univ., Xiamen Univ., March 2014.

13a Mini-Course on Zeta Functions, Beijing University, December, 2013.

13b Colloquium, Tsinghua University, December, 2013.

13c Modular Forms in String Theory, Toronto, September, 2013.

12a Colloquium, Carleton University, Ottawa, September, 2012.

12b Joint Montreal-Vermont Number Theory Seminar, Montreal, September, 2012.

12c Colloquium and Number Theory Conference, Chongqing University, August, 2012.

12d Finite Field Conference, Beijing, June, 2012.

12e Upstate New York Number Theory Conference, Rochester, April, 2012.

11a Institute Lecture, Chinese Academy of Science, Beijing, December, 2011.

11b Number Theory Seminar, Nankai Institute of Mathematics, December, 2011.

11c Algebra Seminar, Clemson University, October, 2011.

11d Mini-course in Summer School on Coding Theory, Beijing University, August, 2011.

11e Graduate School Seminar, Chinese Academy of Sciences, Beijing, August, 2011.

11f Number Theory Conference (K. Feng's 70-th birthday), USTC, June, 2011.

11g Computer Science Seminar, University of Oklahoma, March, 2011.

10a Exponential Sums over Finite Fields and Applications, Zurich, November, 2010.

10b Number Theory Seminar, John Hopkins University, Baltimore, September, 2010.

10c Institute For Advanced Study, Tsinghua University, Beijing, July, 2010.

10d Institute of Mathematics, Chinese Academy of Sciences, Beijing, July, 2010.

10e Counting Points: Theory, Algorithms and Practice, Montreal, April, 2010.

10f Effective Methods in p-adic Cohomology, Oxford University, March, 2010.

09a Colloquium, Beijing University, December, 2009.

09b Colloquium, Sichuan University, Chengdu, December, 2009.

09c Colloquium, Sichuan Normal University, Chengdu, December, 2009.

09d Center For Advanced Study, Tsinghua University, July-December, 2009.

09e Lecture Series at Institute of Mathematics, Beijing, November, 2009.

09f Institute of Mathematics, Nankai University, August, 2009.

09g Counting Points on Varieties, Leiden, April, 2009.

08a Centers For Advanced Study, Tsinghua University, December, 2008.

08b Graduate Number Theory Summer School, Hefei, July-August, 2008.

08c Colloquium, Capital Normal University, Beijing, August, 2008.

08d Ergodic Number Theory Seminar, Institute of Mathematics, Beijing, July, 2008.

08e Algorithmic Number Theory Workshop, Hongkong, June, 2008.

08f P-adic Modular Form Seminar, UCSD, May, 2008.

08g 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, Februray 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 Utricht (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-Warning 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 φ-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 φ-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.

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