CURRICULUM VITAE

Victor Y. Pan

Department of Mathematics and Computer Science
Lehman College - City University of New York
Bronx, New York 10468
Tel. (914) 737-2637 (home) and (718) 960-8568 (office)
Fax (718) 960-8969
E-Mail: victor.pan @ lehman.cuny.edu
Website: http://comet.lehman.cuny.edu/vpan/

Languages: English, Russian, French, Italian

Personal Data:

- Immigrated to the U.S. in 1977
- U.S. Citizen since 1982
- Married
- Hobbies: Poetry, History, Mountaineering, Swimming, Skiing and Cross-country Skiing

AREAS of RESEARCH SPECIALIZATION:

- Algebraic Computation
- Numerical Computation
- Design and Analysis of Algorithms

EDUCATION:

1956–1964: Department of Mechanics and Mathematics,
Moscow State University (MGU)

1961: M.S. in Mathematics

1964: Ph.D. in Mathematics (Thesis Advisor: A. G. Vitushkin)

EMPLOYMENT:

1988 - Visiting Professor, Professor, and
Distinguished Professor (since 2000)
Department of Mathematics and Computer Science
Lehman College, CUNY, and
the Graduate Center of CUNY,
Ph.D. Programs in Computer Science and
(since 1999) in Mathematics

August 2002 - Visiting Scientist
Ontario Research Center in Computer Algebra (ORCCA),

Waterloo and London, Western Ontario, Canada

June 2002 - Visiting Scientist
Mathematics and Informatics Departments, University of Pisa, Italy

August-September 1998 - Senior Key Scientist
Mathematical Science Research Institute, Berkeley, California

July 1998 - Visiting Scientist
Fields Research Institute, Toronto, Canada

March-August 1996 and March-June 1997 - Invited Scientist
Project SAFIR, INRIA-Sophia Antipolis, France

1979-80 and 1981-1991 - Professor
Computer Science Department, State University of New York at Albany

January 1991 and July-August 1992 - Visiting Scientist
International Computer Science Institute, Berkeley, California

1989-90 - Visiting Professor
Computer Science Department, Columbia University, New York

July 1984 - Visiting Professor
Department of Mathematics, University of Pisa and CNR, Italy

April-June 1981 - Visiting Professor
Computer Science Department, Stanford University, California

1980-81 - Visiting Member
the Institute for Advanced Study, Princeton, New Jersey

1977-79 and August 1980 - Visiting Scientist
IBM Research Center, Yorktown Heights, New York

1969-76 - Senior Researcher,
Department of Models for National Economy,
Institute of Economics, Academy of Science, Moscow, Russia

1965-69 - Senior Researcher,
Department of Computations for Economics,
Institute of Electronic Control Machines, Moscow, Russia

1964-65 - Junior Researcher,
Department of Computations for Economics,
Institute of Electronic Control Machines, Moscow, Russia

Consulting:

- ATT Bell Laboratories, Murray Hill, New Jersey, 1991-1993
- General Electric Research and Development Center, Schenectady, New York, 1980

PUBLICATIONS
(see the List of Publications, Research Highlights, and Research Areas):

- 4 research monographs
- over 20 book chapters and survey articles
- over 160 refereed publications in journals
- over 80 refereed publications in conference proceedings

ACADEMIC AND PROFESSIONAL HONORS:

Best Paper Award, Journal of Complexity (2000)
Designation of Fellowship in American Math Society for "Contributions to the Mathematical Theory of Computation" (2013)

GRANTS and AWARDS (individual):

- NSF Grants: $1,483,057, 1980-2004, 2011-2015.
- 23 PSC-CUNY Awards: $105,080, 1989-2013
- CUNY Institute for Software Design and Development Grants: $8,000, 2001-2002
- Best Paper Award 2000, Journal of Complexity: $3,000 (shared)
- Shuster Foundation Award: $4,000, 1994-2000
- Lehman College CUNY, Faculty Award for Research and Scholarship: $1,000, 1994
- Institute for Advanced Study, Grant: $13,000, 1980-81
- SUNY University Award: $2,000, 1980

MOST RECENTLY:

- NSF Grant CCR 40211-0001,
  "Synthesis of Algebraic and Numerical Algorithms", $258,914
  (from 8/1/1998 to 7/31/2004)
- NSF Grant CCF-1116736,
  "Novel Methods for Fundamental Matrix and Polynomial Computations", $350,000
  (from 8/1/2011 to 7/31/2015)
- PSC CUNY AWARD 65393-0034, $3,297
  "Algebraic and Numerical Algorithms", 6/30/2003 – 7/1/2004
- PSC CUNY AWARD 66437-0035, $3,495
  "Algebraic and Numerical Computing", 6/30/2004 – 7/1/2005
- PSC CUNY AWARD 67297-0036, $2,805
  "Matrix and Polynomial Computations", 6/30/2005 – 7/1/2006
- PSC CUNY AWARD 68291-0037, $3,176
  "Matrix and Polynomial Computations", 6/30/2006 – 7/1/2007
- PSC CUNY AWARD 69330-00-38, $3,990
  "Algebraic and Numerical Algorithms
  for Matrix and Polynomial Computations" 6/30/2007 – 7/1/2008
- PSC CUNY AWARD 61406-00-39, $3,800
  "Algebraic and Numerical Algorithms
  for Matrix and Polynomial Computations," 6/30/2008 – 7/1/2009
- PSC CUNY AWARD 62230-00-40, $4,300
  "Algebraic and Numerical Algorithms
  for Matrix and Polynomial Computations," 6/30/2009 – 7/1/2010

- PSC CUNY AWARD 63153-00-41, $2,860
  "Algebraic and Numerical Algorithms
  for Matrix and Polynomial Computations," 6/30/2010 – 7/1/2011
- PSC CUNY AWARD 64512–0042, $6,000
  "Matrix and Polynomial Computations," 6/30/2011 – 7/1/2012
- PSC CUNY AWARD 65792–0043, $11,998.92
  "Matrix and Polynomial Algorithms," 6/30/2012 – 7/1/2013
- PSC-CUNY Award 67699-00 45,
  "Advancing Matrix and Polynomial Computations", $67699-00 45
  6/30/2014 – 7/1/2015

Membership in Professional Societies:

- American Math. Society (Fellow since 2013)
- Society for Industrial and Applied Math.
- Association for Computing Machinery
- European Association for Theoretical Computer Science
- International Linear Algebra Society

SERVICE TO PROFESSION.

EDITING:

Associated Editor of the Journals:

- Computers and Mathematics (with Applications), (1980-2011)
- Theoretical Computer Science (since 1985)
- Calcolo (since 1999)

Managing and Corresponding Guest Editor of the Four Special Issues:

- Special Issue on Algebraic and Numerical Algorithms (I. Z. Emiris, B. Mourrain, and V. Y. Pan, editors), Theoretical Computer Science, 315, 2, 3, 307-672, 2004
- Special Issue on Symbolic–Numerical Algorithms (D. A. Bini, V. Y. Pan, and J. Verschelde editors), Theoretical Computer Science, 409, 2,155-331, 2008
- Special Issue on Algebraic and Numerical Algorithms (I. S. Kotsireas, B. Mourrain, and V. Y. Pan, editors), Theoretical Computer Science, 412, 16, 1443-1543, 2011
- Special Issue on Algebraic and Numerical Algorithms (I. S. Kotsireas, B. Mourrain, V. Y. Pan, and Lihong Zhi, editors), Theoretical Computer Science, 479, 1-186, 2013

PROGRAM AND SCIENTIFIC COMMITTEES MEMBER FOR:

- ACM Annual International Symposium on Symbolic and Algebraic Computation (ISSAC 1999), Vancouver, British Columbia, Canada, July-August 1999

- ACM Annual International Symposium on Symbolic and Algebraic Computation (ISSAC 2007), Waterloo, Ontario, Canada, July-August 2007
- The 2nd International Workshop on Symbolic-Numeric Computation (SNC 2007), London, Ontario, Canada, July 2007
- FIVE International Conferences on Polynomial Computer Algebra, St. Petersburg, Russia, Aprils of 2008, 2009, 2010, 2011 and 2012
- The 4th International Workshop on Symbolic-Numeric Computation (SNC 2011), San Jose, California, June 2011
- International Symposium on Linear Algebra (ILAS 2013), Providence, RI, June 2013
- The 5th International Workshop on Symbolic-Numeric Computation (SNC 2014), Shanghai, China, July 2014

Other Professional Activities:

- Organization of Conferences, Conference Sessions and Minisymosia
- Refereeing and Reviewing for Professional Journals, Conferences and Surveys
- Lectures and Invited Lectures at Conferences in Computer Science, Mathematics, and Applied Mathematics in North and South Americas, Europe, Asia, and Australia (see the Lists of Publications and Talks at the Conferences)
- Colloquium Lectures at the Universities and Research Centers

SERVICE TO LEHMAN COLLEGE:

- Supervising Syllabi in Computer Science
- Advising students in Mathematics and Computer Science
- Observing Junior Instructors in Mathematics and Computer Science

SERVICE TO CUNY:

Teaching at the Graduate School and University Center (1989-2013, all semesters except for the sabbatical year of 1996-97)

Advising of Ph.D. Students: 20 Ph.D. Defenses (see the List of Ph.D. Defenses)

Charing 20 PhD Defense Committees in Mathematics and Computer Science (since 1991)

Membership in the CUNY's Committees:

- the Distinguished Professor Selection Committee 2005–2013
- the Leadership Committee of the PhD Program in Computer Science 2012–2013
- the PhD Defense Committees in Mathematics (10) and Computer Science (10) since 1991

List of the Ph.D. Students at CUNY supervised and mentored by Victor Pan
STUDENT NAME, DISSERTATION DEFENSE, GRADUATION DATE, Ph.D. PROGRAM

- Atinkpahoun, A., April 11, 1995; June 1995, Computer Science

- Cebecioglu, H., May 23, 2001; October 2001, Mathematics
- Chen, Z.Q., November 9, 1999; February 2000, Mathematics
- Dias, O., November 26, 1996; January 1997, Mathematics
- Huang, X., July 1997; October 1997, Mathematics
- Landowne, E., November 1995; February 1996, Computer Science
- Lin, Y., March 1991; June 1991, Computer Science
- Murphy, B., March 27, 2007; May 2007, Computer Science
- Providence, S., December 14, 1999; February 2000, Computer Science
- Rami, Y., February 22, 2000; June 2000, Mathematics
- Rosholt, R.E., April 4, 2003; May 2003, Computer Science
- Sadikou, A., January 12, 1996; October 1996, Computer Science
- Serme, A., February 2008; May 2008, Mathematics
- Sobze, I., April 12, 1994; June 1994, Computer Science
- Stuart, C., April 1998; June 1998, Computer Science
- Tabanjeh, M.A., November 9, 1999; February 2000, Mathematics
- Taj-Eddin, I., March 27, 2007; September 2007, Computer Science
- Wang, X., April 4, 2003; May 2003, Mathematics
- Yu, Y., April 1998; June 1998, Computer Science
- Zheng, A., October 16, 1997; January 1998, Mathematics

A. Atinkpahoun, O. Dias, S. Providence, A. Sadikou, A. Serme, and I. Sobze are African-Americans. H. Celecioglu, O. Dias and Y. Lin are females. At all the listed defenses, Victor Pan has served as the Mentor, the Advisor and the Chair of the Examination Committees.

Currently he advises three PhD students of CUNY: I. Retamoso, J. Wolf, and X. Yan. Wolf and Yan are expected to defend in April-May of 2014, Retamoso one year later.

PUBLICATIONS

BOOKS

1. "How to Multiply Matrices Faster", Lecture Notes in Computer Science, vol. 179 (XI + 212 pages), Springer, Berlin (1984).

2. "Polynomial and Matrix Computations", Volume 1: "Fundamental Algorithms" (XVI + 415 pages) (by D. Bini and V. Y. Pan), in the series Progress in Theoretical Computer Science (R.V. Book editor), Birkhäuser, Boston (1994).

3. "Structured Matrices and Polynomials: Unified Superfast Algorithms" (XXV + 278 pages), Birkhäuser/Springer, Boston/New York (June 2001).

4. "Numerical Methods for Roots of Polynomials" (by J. M. McNamee and V. Y. Pan), Part 2 (XXII + 718 pages), Elsevier (2013).

CHAPTERS IN BOOKS AND SURVEY ARTICLES, including prefaces

(items 1, 2, 3, 4, 5, 8 and 15 include new research results).

1. "On Methods of Computing the Values of Polynomials", Uspekhi Matematicheskikh Nauk, 21, 1 (127), 103-134 (1966). (Transl. Russian Mathematical Surveys, 21, 1 (127), 105-137 (1966).)

2. "How Can We Speed Up Matrix Multiplication?", SIAM Review, 26, 3, 393-415 (1984).

3. "Linear Systems of Algebraic Equations", in Encyclopedia of Physical Sciences and Technology, 7, 304-329 (1987), (first edition, Marvin Yelles, editor); 8, 779-804 (1992) (second edition), and 8, 617-642 (2001) (third edition, Robert A. Meyers, editor), Academic Press, San Diego, California.

4. "Complexity of Algorithms for Linear Systems of Equations", in Computer Algorithms for Solving Linear Algebraic Equations (The State of the Art), (E. Spedicato, editor), NATO ASI Series, Series F: Computer and Systems Sciences, 77, 27-56, Springer, Berlin (1991) and Academic Press, Dordrecht, the Netherlands (1992).

5. "Complexity of Computations with Matrices and Polynomials," SIAM Review, 34, 2, 225-262 (1992).

6. "Parallel Solution of Sparse Linear and Path Systems", in Synthesis of Parallel Algorithms (J. H. Reif, editor), Chapter 14, pp. 621-678. Morgan Kaufmann publishers, San Mateo, CA (1993).

7. "Algebraic Algorithms" (by A. Diaz, E. Kaltofen and V. Y. Pan (the corresponding author)), Chapter 10 in the Computer Science and Engineering Handbook (Allen B. Tucker, Jr., editor), 226-249, CRC Press Inc., Boca Raton, Florida (1997) and Chapter 8 in the Computer Science and Engineering Handbook (Allen B. Tucker, editor), pp. 8-1 to 8-24, Chapman and Hall/CRC Press, 2004.

8. "Solving a Polynomial Equation: Some History and Recent Progress", SIAM Review, 39, 2, 187-220 (1997).

9. "Solving Polynomials with Computers", American Scientist, 86, 62-69 (January-February 1998).

10. "Computational Complexity of Solving Large Sparse and Large Special Linear Systems of Equations", pp. 1-24, in "Algorithms for Large Scale Linear Algebraic Systems: Applications in Science and Engineering" (G. Winter Althaus and E. Spedicato, editors), NATO Advanced Science Institute Series, Kluwer Academic Publishers, Dordrecht, The Netherlands (1998).

11. "Some Recent Algebraic/Numerical Algorithms", Electronic Proceedings of IMACS/ACA'98 (1998). Available at http:www-troja.fjfi.cvut.cz/aca98/sessions/approximate

12. "Algebraic Algorithms" (by A. Diaz, I. Z. Emiris, E. Kaltofen and V. Y. Pan (the corresponding author)), Chapter 16 in Handbook "Algorithms and Theory of Computations", pp. 16-1 to 16-27 (M. Atallah, editor), CRC Press Inc., Boca Raton, Florida (1999).

13. "Fast Fourier Transform and Its Applications" (by I. Z. Emiris and V. Y. Pan (the corresponding author)), Chapter 17 in Handbook "Algorithms and Theory of Computations", pp. 17-1 to 17-30 (M. Atallah, editor), CRC Press Inc., Boca Raton, Florida (1999).

14. "Preface to the Special Issue on Algebraic and Numerical Algorithms" (by I. Z. Emiris, B. Mourrain, and V. Y. Pan), Theoretical Computer Science, 315, 2-3, 307-308 (2004).

15. "Root-finding with Eigen-solving" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, Y. Tang, X. Wang, and X. Yan), pages 185-210 in Symbolic-Numeric Computation (Dongming Wang and Lihong Zhi, editors), Birkhauser, Basel/Boston (2007).

16. "Preface to the Special Issue on Symbolic–Numerical Algorithms" (by D. A. Bini, V. Y. Pan, and J. Verschelde), Theoretical Computer Science, 409, 2, 155-157 (2008).

17. "Algebraic and Numerical Algorithms" (by I. Z. Emiris, V. Y. Pan (the corresponding author), and E. Tsigaridas), in Algorithms and Theory of Computations Handbook", Second Edition, Volume 1: General Concepts and Techniques, 1016 pp., pages 1–34 in Chapter 17 (Mikhail J. Atallah and Marina Blanton, editors), CRC Press Inc., Boca Raton, Florida (2009).

18. "Fast Fourier Transform and Its Applications" (by I. Z. Emiris and V. Y. Pan (the corresponding author)), in Algorithms and Theory of Computations Handbook", Second Edition, Volume 1: General Concepts and Techniques, 1016 pp., pages 1–31 in Chapter 18 (Mikhail J. Atallah and Marina Blanton, editors), CRC Press Inc., Boca Raton, Florida (2009).

19. "Preface to the Special Issue on Symbolic and Numerical Algorithms" (by I. S. Kotsireas, B. Mourrain, and V. Y. Pan), Theoretical Computer Science, 412, 16, 1443-1444 (2011).

20. "Preface to the Special Issue on Symbolic and Numerical Algorithms" (by I. S. Kotsireas, B. Mourrain, V. Y. Pan, and L. Zhi), Theoretical Computer Science, 479, 1-3 (2013).

21. “Algebraic Algorithms” (by I. Z. Emiris, V. Y. Pan (the corresponding author), and E. Tsigaridas), Chapter 10 of Computing Handbook (Third edition), Volume I: Computer Science and Software Engineering (Allen B. Tucker, Teo Gonzales, and Jorge L. Diaz-Herrera, editors), Taylor and Francis Group, in print. Available at arXiv 1311.3731 [cs.DS]

RESEARCH PAPERS (in journals and refereed proceedings of conferences).

1. "On One Question by N.N. Luzin", Nauchnye Doklady Vysshey Schkoly, Phiziko-Matematicheskie Nauki (in Russian), 4, 59-62 (1958).

2. "Some Schemes for the Evaluation of Polynomials with Real Coefficients", Doklady Akademii Nauk SSSR (in Russian), 127, 2, 266-269 (1959).

3. "On Approximation of Analytic Functions by Rational Ones", Uspekhi Matematicheskikh Nauk (in Russian), 16, 5 (101), 195-197 (1961).

4. "Some Schemes for the Evaluation of Polynomials with Real Coefficients" Problemy Kibernetiki (in Russian), (edited by A.A. Lyapunov), 5, 17-29 (1961). (Transl. Problems of Cybernetics, USSR, 5, 14-32, Pergamon Press (1961).)

5. "On Some Methods of Computing Polynomial Values", Problemy Kibernetiki (in Russian), (edited by A.A. Lyapunov), 7, 21-30 (1962). (Transl. Problems of Cybernetics, USSR, 7, 20-30, U.S. Dept. of Commerce (1962).)

6. "Schemes with Preconditioning for the Evaluation of Polynomials and a Program for Automatic Preconditioning", Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki (in Russian), 2, 1, 133-140 (1962). (Transl. from USSR Computational Mathematics and Mathematical Physics, 1, 137-146 (1963).).

7. "Methods for Computing Polynomials" (in Russian), Ph.D. thesis, Dept. of Mechanics and Mathematics, Moscow State University (1964).

8. "The Evaluation of Polynomials of the Fifth and Seventh Degrees with Real Coefficients", Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki (in Russian), 5, 1, 116-118 (1965). (Transl. USSR Computational Mathematics and Mathematical Physics, 5, 1, 159-161 (1965).)

9. "On Simultaneous Evaluation of Several Polynomials of Low Degree (Two to Five)", Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki (in Russian), 6, 2, 352-357 (1966). (Transl. USSR Computational Mathematics and Mathematical Physics, 6, 2, 222-227 (1966).)

10. "On Methods of Computing the Values of Polynomials", Uspekhi Matematicheskikh Nauk (in Russian), 21, 1 (127), 103-134 (1966). (Transl. Russian Mathematical Surveys, 21, 1 (127), 105-137 (1966).)

11. "Calculus of Rational Costs Based on Modern Economic Information" (by V. Belkin, A. Kronrod, Y. Nazarov and V. Y. Pan), Ekonomika i Matematicheskie Metody (in Russian), Akademiya Nauk SSSR, 1, 5, 699-717 (1965).

12. "A Linear Model and Algorithm for Optimizing Foreign Trade", Tezisy Dokladov i Vystupleniy na Simpoziume po Modelirovaniyu Narodnogo Khozyaistva, Institut Ekonomiki AN SSSR (Proceedings of the Symposium on Models of Public Economy, Institute of Economics, Academy of Sciences of USSR), (in Russian), Moscow, 29-37 (1970).

13. "On Solving a Distribution Problem with Upper Bounds on the Variables and a Simplified Criterion for Optimizing Foreign Trade", Trudy 4-oy Zimney Schkoly po Matematicheskomu Programmirovaniyu i Smezhnym Voprosam (in Russian), (Transactions of the 4-th Winter School on Mathematical Programming and Adjacent Problems), (edited by S. I. Zukhovitskiy), Iss. 5, 26-49, Drogobych (1972).

14. "On Schemes for the Evaluation of Products and Inverses of Matrices", Uspekhi Matematicheskikh Nauk (in Russian), 27, 5 (167), 249-250 (1972).

15. "Models for Planning Costs with Optimization of Foreign Trade of Several Countries under the Economic Integration", Primenenie Ekonomiko-Matematicheskikh Modeley i EVM pri Planirovanii i Prognozirovanii Tsen (in Russian), 5 (1973).

16. "A Model for the Optimization of Foreign Economic Relations Under the Economic Integration of the Socialist Countries", Ekonomika i Matematicheskie Metody (in Russian), Akademiya Nauk SSSR, 10, 2, 255-266 (1974). (Transl. USSR Trade and Services, 755, 1-16 (1974).)

17. "A Model for the Dynamics of Costs and Expenditures", Trudy Mezhdunarodnoy Konferentsii "Modelirovanie Ekonomicheskikh Protsessov" (Transactions of the International Conference, "Models of Economic Processes"), (in Russian), Erevan, 166-174 (1974).

18. "A Modification of a Balanced Model of Income-Commodities into an Equilibrium Model" (by V. Belkin, V. Ivanter, N. Konstantinov and V. Pan), Ekonomika i Matematicheskie Methody, Akademiya Nauk SSSR (in Russian), 11, 6, 1037-1049 (1975).

19. "Computational Complexity of Computing Polynomials over the Fields of Real and Complex Numbers", Proceedings of the Tenth Annual ACM Symposium on Theory of Computing (STOC'78), 162-172, ACM Press, New York (1978).

20. "Strassen's Algorithm Is Not Optimal. Trilinear Technique of Aggregating, Uniting and Canceling for Constructing Fast Algorithms for Matrix Multiplication", Proceedings of the 19th Annual IEEE Symposium on Foundations of Computer Science (FOCS'78), 166-176, IEEE Computer Society Press, Long Beach, California (1978).

21. "Fields Extension and Trilinear Aggregating, Uniting and Canceling for the Acceleration of Matrix Multiplication", Proceedings of the 20th Annual IEEE Symposium on Foundations of Computer Science (FOCS'79), 28-38, IEEE Computer Society Press, Long Beach, California (1979).

22. "Methods of Aggregations" (by W. L. Miranker and V. Y. Pan), Linear Algebra and Its Applications, 29, 231-257 (1980).

23. "New Fast Algorithms for Matrix Operations", SlAM J. on Computing, 9, 2, 321-342 (1980).

24. "Convolution of Vectors over the Real Field of Constants", Journal of Algorithms, 1, 297-300 (1980).

25. "New Combinations of Methods for the Acceleration of Matrix Multiplications", Computers and Mathematics (with Applications), 7, 73-125 (1981).

26. "The Bit Complexity of Arithmetic Algorithms", Journal of Algorithms, 2, 144-163 (1981).

27. "A Unified Approach to the Analysis of Bilinear Algorithms", Journal of Algorithms, 2, 301-310 (1981).

28. "The Bit Operation Complexity of Matrix Multiplication and All Pair Shortest Path Problem", Computers and Math. (with Applications), 7, 5, 431-438 (1981).

29. "The Lower Bounds on the Additive Complexity of Bilinear Problems in Terms of Some Algebraic Quantities", Information Processing Letters, 13, 2, 71-72 (1981).

30. "Trilinear Aggregating with Implicit Canceling for a New Acceleration of Matrix Multiplication", Computers and Math. (with Applications), 8, 1, 23-34 (1982).

31. "The Bit Operation Complexity of Approximate Evaluation of Matrix and Polynomial Products Using Modular Arithmetic", Computers and Math. (with Applications), 8, 2, 137-140 (1982).

32. "Fast Matrix Multiplication without APA-Algorithms", Computers and Math. (with Applications), 8, 5, 343-366 (1982).

33. "Trilinear Aggregating is the Basis for the Asymptotically Fastest Known Algorithms for Matrix Multiplication", Conference Record, Second Conference on Foundations of Software Technology and Theoretical Computer Science (FST and TCS'82), 321-337, Indian Institute of Technology, Bangalore, India (December 1982).

34. "The Additive and Logical Complexities of Linear and Bilinear Algorithms", J. of Algorithms, 4, 1-34 (1983).

35. "The Projective Power Method for the Algebraic Eigenvalue Problem", Computers and Math. (with Applications), 9, 6, 735-745 (1983).

36. "Trilinear Aggregating is the Basis for the Asymptotically Fastest Known Algorithms for Matrix Multiplication" (extended abstract), Methods of Operations Research, 45, 493-494 (1983).

37. "Trilinear Aggregating and the Recent Progress in the Asymptotic Acceleration of Matrix Operations", Theoretical Computer Science, 33, 117-138 (1984).

38. "How Fast Can We Solve a System of Linear Inequalities in the Worst and in the Average Case?", Methods of Operations Research, 51, 107-118 (1984).

39. "Fast Finite Methods for a System of Linear Inequalities", Computers and Math. (with Applications), 11, 4, 355-394 (1985).

40. "The Bit Complexity of Matrix Multiplication and of the Related Computations in Linear Algebra. The Segmented λ-algorithms", Computers and Math. (with Applications), 11, 9, 919-928

(1985).

41. "On Application of Some Recent Techniques of the Design of Algebraic Algorithms to the Sequential and Parallel Evaluation of the Roots of a Polynomial and to Some Other Numerical Problems", Computers and Math. (with Applications), 11, 9, 911-917 (1985).

42. "Fast Parallel Polynomial Division via Reduction to Polynomial Inversion Modulo a Power" (by D. Bini and V. Y. Pan), Information Processing Letters, 21, 79-81 (1985).

43. "On the Complexity of a Pivot Step of the Revised Simplex Algorithm", Computers and Math. (with Applications), 11, 11, 1127-1140 (1985).

44. "Efficient Parallel Solution of Linear Systems" (by V. Y. Pan and J. Reif), Proc. 17th Ann. ACM Symp. on Theory of Computing (STOC'85), 143-152 , ACM Press, New York (1985).

45. "Improved Processor Bounds for Algebraic and Combinatorial Problems in RNC" (by Z. Galil and V. Y. Pan), Proc. 26th Ann. IEEE Symp. on Foundations of Computer Science (FOCS'85), 490-495, IEEE Computer Society Press, Los Angeles, California (1985).

46. "Fast and Efficient Algorithms for Sequential and Parallel Evaluation of Polynomial Zeros and of Matrix Polynomials," Proc. 26th Ann. IEEE Symp. on Foundations of Computer Science (FOCS'85), 522-531, IEEE Computer Society Press, Los Angeles, California (1985).

47. "Fast and Efficient Parallel Algorithms for the Exact Inversion of Integer Matrices", Proc. Fifth Conf. on Foundations of Software Technology and Theoretical Computer Science (FST and TCS'85), (edited by K. V. Nori), Lecture Notes in Computer Science, 206, 504-521, Springer, Berlin (1985).

48. "Algorithms for Polynomial Division" (by D. Bini and V. Y. Pan), Proc. European Conference on Computer Algebra, Linz, Austria, Lecture Notes in Computer Science, 204, 1-3, Springer (1985).

49. "The Trade-off Between the Additive Complexity and Asynchronicity of Linear and Bilinear Algorithms", Information Processing Letters, 22, 11-14 (1986).

50. "Fast and Efficient Parallel Linear Programming and Least Squares Computations" (by V. Y. Pan and J. Reif), VLSI Algorithms and Architectures, Lecture Notes in Computer Science, 227, 283-295, Springer, Berlin (1986).

51 "A Logarithmic Boolean Time Algorithm for Parallel Polynomial Division" (by D. Bini and V. Y. Pan), VLSI Algorithms and Architectures, Lecture Notes in Computer Science, 227, 246-251, Springer, Berlin (1986).

52. "Polynomial Division and Its Computational Complexity" (by D. Bini and V. Y. Pan), Journal of Complexity, 2, 179-203 (1986).

53. "Fast Parallel Algorithms for Polynomial Division over Arbitrary Field of Constants" (by D. Bini and V. Y. Pan), Computers and Mathematics (with Applications), 12A, 11, 1105-1118 (1986).

54. "Extension of the Parallel Nested Dissection Algorithm to the Path Algebra Problems" (by V. Y. Pan and J. Reif), Proc. Sixth Conference on Foundations of Software Technology and Theoretical Computer Science (FST and TCS'86), (New Delhi, India), Lecture Notes in Computer Science, 241, 470-487, Springer, Berlin (1986).

55. "Fast and Efficient Linear Programming and Linear Least-Squares Computations" (by V. Y. Pan and J. Reif), Computers and Mathematics (with Applications), 12A, 12, 1217-1227 (1986).

56. "Parallel Nested Dissection for Path Algebra Computations" (by V. Y. Pan and J. Reif), Operations Research Letters, 5, 4, 177-184 (1986).

57. "Efficient Parallel Linear Programming" (by V. Y. Pan and J. Reif), Operations Research Letters, 5, 3, 127-135 (1986).

58. "A Logarithmic Boolean Time Algorithm for Parallel Polynomial Division" (by D. Bini and V. Y. Pan), Information Processing Letters, 24, 233-237 (1987).

59. "Algebraic Complexity of Computing Polynomial Zeros", Computers and Math. (with Applications), 14, 4, 285-304 (1987).

60. "Complexity of Parallel Matrix Computations", Theoretical Computer Science, 54, 65-85 (1987).

61. "Sequential and Parallel Complexity of Approximate Evaluation of Polynomial Zeros", Computers and Mathematics (with Applications), 14, 8, 591-622 (1987).

62. "Some Polynomial and Toeplitz Matrix Computations" (by V. Y. Pan and J. Reif), Proc. 28th Ann. IEEE Symp. on Foundations of Computer Science (FOCS'87), 173-184, IEEE Computer Society Press, Los Angeles, California (1987).

63. "Improved Processor Bounds for Combinatorial Problems in RNC" (by Z. Galil and V. Y. Pan), Combinatorica, 8, 2, 189-200 (1988).

64. "Efficient Algorithms for the Evaluation of the Eigenvalues of (Block) Banded Toeplitz Matrices" (by D. Bini and V. Y. Pan), Mathematics of Computation, 50, 182, 431-448 (1988).

65. "Computing the Determinant and the Characteristic Polynomial of a Matrix via Solving Linear Systems of Equations", Information Processing Letters, 28, 2, 71-75 (1988).

66. "Fast and Efficient Solution of Path Algebra Problems" (by V. Y. Pan and J. Reif), Journal of Computer and Systems Sciences, 38, 3, 494-510 (1989).

67. "Parallel Evaluation of the Determinant and of the Inverse of a Matrix" (by Z. Galil and V. Y. Pan), Information Processing Letters, 30, 41-45 (1989).

68. "Fast and Efficient Parallel Evaluation of the Zeros of a Polynomial Having Only Real Zeros", Computers and Mathematics (with Applications), 17, 11, 1475-1480 (1989).

69. "Fast and Efficient Parallel Solution of Dense Linear Systems" (by V. Y. Pan and J. Reif), Computers and Math. (with Applications), 17, 11, 1481-1491 (1989).

70. "Fast Evaluation and Interpolation at the Chebyshev Sets of Points", Applied Math. Letters, 2, 3, 255-258 (1989).

71. "On Some Computations with Dense Structured Matrices", Proc. Annual ACM-SIGSAM International Symposium on Symbolic and Algebraic Computation (ISSAC'89), 34-42, ACM Press, New York (1989).

72. "Fast and Efficient Parallel Inversion of Toeplitz and Block Toeplitz Matrices", Operator Theory: Advances and Applications, 40, 359-389, Birkhäuser, Basel, Switzerland (1989).

73. "On the Bit-Complexity of Discrete Solution of PDEs: Compact Multigrid" (by V. Y. Pan and J. Reif), Proc. 17th International Colloquium on Automata, Languages and Programming (ICALP'90), Springer's Lecture Notes in Computer Science, 443, 612-625 (1990).

74. "Parallel Least-Squares Solution of General and Toeplitz-like Linear Systems", Proc. 2nd Ann. ACM Symp. on Parallel Algorithms and Architecture (SPAA'90), 244-253, ACM Press, New York (1990).

75. "Parallel Polynomial Computations by Recursive Processes" (by D. Bini and V. Y. Pan), Proc. Annual ACM International Symposium on Symbolic and Algebraic Computation (ISSAC'90), 294, ACM Press, New York (1990).

76. "On Computations with Dense Structured Matrices", Math. Comp., 55, 191, 179-190 (1990).

77. "The Bit-Complexity of the Discrete Solution of PDEs: Compact Multigrid" (by V. Y. Pan and J. Reif), Computers and Math. (with Applications), 20, 2, 9-16 (1990).

78. "Estimating the Extremal Eigenvalues of a Symmetric Matrix", Computers and Math. (with Applications), 20, 2, 17-22 (1990).

79. "The Modified Barrier Function Method for Linear Programming and Its Extensions", Computers and Math. (with Applications), 20, 3, 1-14 (1990).

80. "Parallel Complexity of Tridiagonal Symmetric Eigenvalue Problem" (by D. Bini and V. Y. Pan), Proc. 2nd Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'91), 384-393, ACM Press, New York, and SIAM Publications, Philadelphia (1991).

81. "Improved Parallel Computations with Matrices and Polynomials" (by D. Bini, L. Gemignani and V. Y. Pan), Proc. 18th Intern. Colloquium on Automata, Languages and Programming (ICALP'91), Lecture Notes in Computer Science, 510, 520-531, Springer, Berlin (1991).

82. "Processor Efficient Parallel Solution of Linear Systems over an Abstract Field" (by E. Kaltofen and V. Y. Pan), Proc. 3rd Ann. ACM Symp. on Parallel Algorithms and Architectures (SPAA'91), 180-191, ACM Press, New York (1991).

83. "An Improved Newton Iteration for the Generalized Inverse of a Matrix, with Applications" (by V. Y. Pan and R. Schreiber), SIAM J. on Scientific and Statistical Computing, 12, 5, 1109-1131 (1991).

84. "On the Evaluation of the Eigenvalues of a Banded Toeplitz Block Matrix" (by D. Bini and V. Y. Pan), J. of Complexity, 7, 408-424 (1991).

85. "The Parallel Computation of the Minimum Cost Paths in Graphs by Stream Contraction" (by V. Y. Pan and J. Reif), Information Processing Letters, 40, 79-83 (1991).

86. "Univariate Polynomial Division with a Remainder by Means of Evaluation and Interpolation" (by V. Y. Pan, E. Landowne, and A. Sadikou), Proc. of 3rd IEEE Symp. on Parallel and Distributed Processing, 212-217, IEEE Computer Society Press, Los Alamitos, California (1991).

87. "Extended Concept of Significant Digits and Lower Precision Computations", Applied Mathematics Letters, 5, 2, 3-6 (1992).

88. "Parametrization of Newton's Iteration for Computations with Structured Matrices and Applications", Computers and Mathematics (with Applications), 24, 3, 61-75 (1992).

89. "On Parallel Complexity of Integer Linear Programming, GCD and the Iterated Mod Function" (by Yu Lin-Kriz and V. Y. Pan), Proc. 3rd Ann. ACM-SIAM Symposium on Discrete Algorithms (SODA'92), 124-137, ACM Press, New York and SIAM Publications, Philadelphia (1992).

90. "Efficient Parallel Algorithms for Computing All Pair Shortest Paths in Directed Graphs" (by Y. Han, V. Y. Pan and J. Reif), Proc. 4th Ann. ACM Symp. on Parallel Algorithms and Architectures (SPAA'92), 353-362, ACM Press, New York (1992).

91. "Supereffective Slow-down of Parallel Computations" (by V. Y. Pan and F. P. Preparata), Proc. 4th Ann. ACM Symp. on Parallel Algorithms and Architectures (SPAA'92), 402-409, ACM Press, New York (1992).

92. "Compact Multigrid" (by V. Y. Pan and J. Reif), SIAM J. on Scientific and Statistical Computing, 13, 1, 119-127 (1992).

93. "Parallel Solution of Toeplitz-like Linear Systems", J. of Complexity, 8, 1-21 (1992).

94. "A Fast, Preconditioned Conjugate Gradient Toeplitz Solver" (by V. Y. Pan and R. Schreiber), Computers and Math. (with Applications), 24, 7, 17-24 (1992).

95. "On Practical Algorithms for Accelerated Matrix Multiplication" (by J. Laderman, V. Y. Pan and H. X. Sha), Linear Algebra and Its Applications, 162-164, 557-588 (1992).

96. "Practical Improvement of the Divide-and-Conquer Eigenvalue Algorithms" (by D. Bini and V. Y. Pan), Computing, 48, 109-123 (1992).

97. "Polynomial Division with a Remainder by Means of Evaluation and Interpolation" (by V. Y. Pan, E. Landowne, and A. Sadikou), Information Processing Letters, 44, 149-153 (1992).

98. "Improving the Solution of the Symmetric Eigenvalue Problem and an Extension", Applied Mathematics Letters, 5, 6, 49-50 (1992).

99. "New Resultant Inequalities and Complex Polynomial Factorization", Proc. 1st Israel Symp. on Theory of Computing and Systems (ISTCS '92), Lecture Notes in Computer Science, 601, 122-136, Springer, Berlin (1992).

100. "Improved Parallel Computations with Toeplitz-like and Hankel-like Matrices" (by D. Bini and V. Y. Pan), Proc. of Annual ACM-SIGSAM International Symposium on Symbolic and Algebraic Computation (ISSAC'93), 193-200, ACM Press, New York (1993).

101. "The Power of Combining the Techniques of Algebraic and Numerical Computing: Improved Approximate Multipoint Polynomial Evaluation and Improved Multipole Algorithms" (by V. Y. Pan, J. Reif, and S. Tate), Proc. of 33rd Ann. IEEE Symp. on Foundations of Computer Science (FOCS '92), 703-713, IEEE Computer Society Press, Los Alamitos, California (1992).

102. "Processor-Efficient Parallel Solution of Linear Systems II. The Positive Characteristic and Singular Cases" (by E. Kaltofen and V. Y. Pan), Proc. of 33rd Ann. IEEE Symp. on Foundations of Computer Science (FOCS'92), 714-723, IEEE Computer Society Press, Los Alamitos, California (1992).

103. "Improved Parallel Polynomial Division and Its Extension" (by D. Bini and V. Y. Pan), Proc. of 33rd Ann. IEEE Symp. on Foundations of Computer Science (FOCS'92), 131-136, IEEE Computer Society Press, Los Alamitos, California (1992).

104. "Binary Segmentation for Matrix and Vector Operations", Computers and Math. (with Applications), 25, 3, 69-71 (1993).

105. "A New Approach to Fast Polynomial Interpolation and Multipoint Evaluation" (by V. Y. Pan, A. Sadikou, E. Landowne, and O. Tiga), Computers and Math. (with Applications), 25, 9, 25-30 (1993).

106. "Concurrent Iterative Algorithm for Toeplitz-like Linear Systems", IEEE Trans. on Parallel and Distributed Systems, 4, 5, 592-600 (1993).

107. "Fast and Efficient Parallel Solution of Sparse Linear Systems" (by V. Y. Pan and J. Reif), SIAM J. on Computing, 22, 6, 1227-1250 (1993).

108. "Decreasing the Displacement Rank of a Matrix", SIAM J. on Matrix Analysis, 14, 1, 118-121 (1993).

109. "Generalized Compact Multigrid" (by V. Y. Pan and J. Reif), Computers and Math. (with Applications), 25, 9, 3-5 (1993).

110. "A New Algorithm for the Symmetric Tridiagonal Eigenvalue Problem" (by V. Y. Pan and J. Demmel), Journal of Complexity, 9, 387-405 (1993).

111. "Improved Parallel Polynomial Division" (by D. Bini and V. Y. Pan), SIAM J. on Computing, 22, 3, 617-627 (1993).

112. "Improved Parallel Computations with Toeplitz-like and Hankel-like Matrices" (by D. Bini and V. Y. Pan), Linear Algebra and Its Applications, 188, 189, 3-29 (1993).

113. "The NC-Equivalence of Planar Integer Linear Programming and Euclidean GCD" (by D. Shallcross, V. Y. Pan, and Yu Lin-Kriz), Proc. 34th Ann. IEEE Symp. on Foundations of Computer Science (FOCS'93), 557-564, IEEE Computer Society Press, Los Alamitos, California (1993).

114. "New Resultant Inequalities and Complex Polynomial Factorization", SIAM Journal on Computing 23, 5, 934-950 (1994).

115. "Improved Parallel Solution of a Triangular Linear System", Computers and Math. (with Applications), 27, 11, 41-43 (1994).

116. "New Techniques for Approximating Complex Polynomial Zeros", Proc. 5th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'94), 260-270, ACM Press, New York, and SIAM Publications, Philadelphia (1994).

117. "Optimum Parallel Computations with Band Matrices" (by V. Y. Pan, I. Sobze and A. Atinkpahoun), Proc. 5th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'94), 649-658, ACM Press, New York, and SIAM Publications, Philadelphia (1994).

118. "Simple Multivariate Polynomial Multiplication", J. Symbolic Computation, 18, 183-186 (1994).

119. "Parallel Solution of Toeplitz and Toeplitz-like Linear Systems over Fields of Small Positive Characteristic" (by E. Kaltofen and V. Y. Pan), Proceedings of First Intern. Symposium on Parallel Symbolic Computation (PASCO'94), Linz, Austria (Sept. 1994), Lecture Notes Series in Computing, 5, 225-233, World Scientific Publishing Company, Singapore (1994).

120. "Algebraic Improvement of Numerical Algorithms: Interpolation and Economization of Taylor Series", Mathematical and Computer Modeling, 20, 1, 23-26 (1994).

121. "An Algebraic Approach to Approximate Evaluation of a Polynomial on a Set of Real Points", Advances in Computational Mathematics, 3, 41-58 (1995).

122. "Work-Preserving Speed-up of Parallel Matrix Computations" (by V. Y. Pan and F. P. Preparata), SIAM J. on Computing, 24, 4, 811-821 (1995).

123. "Parallel Computation of a Krylov Matrix for a Sparse and Structured Input", Mathematical and Computer Modeling, 21, 11, 97-99 (1995).

124. "Deterministic Improvement of Complex Polynomial Factorization Based on the Properties of the Associated Resultant", Computers and Math. (with Applications), 30, 2, 71-94 (1995).

125. "On Parallel Computations with Band Matrices" (by V. Y. Pan, I. Sobze, and A. Atinkpahoun), Information and Computation, 120, 2, 237-250 (1995).

126. "Optimal (up to Polylog Factors) Sequential and Parallel Algorithms for Approximating Complex Polynomial Zeros", Proc. 27th Ann. ACM Symposium on Theory of Computing (STOC'95), 741-750, ACM Press, New York (1995).

127. "Weyl's Quadtree Algorithm for Unsymmetric Eigenvalue Problem", Applied Math. Letters, 8, 5, 87-88 (1995).

128. "A Fast, Preconditioned Conjugate Gradient Toeplitz and Toeplitz-like Solver" (by V. Y. Pan, A. Zheng, O. Dias, X. Huang), Computers and Math. (with Applications), 30, 8, 57-63 (1995).

129. "Optimal and Nearly Optimal Algorithms for Approximating Polynomial Zeros", Computers and Math. (with Applications), 31, 12, 97-138 (1996).

130. "Computing $x^n \mod p(x)$ and an Application to Splitting a Polynomial into Factors over a Fixed Disc", Journal of Symbolic Computations, 22, 377-380 (1996).

131. "A New Approach to Parallel Computation of Polynomial GCDs and to Related Parallel Computations over Fields and Integer Rings", Proc. 7th Ann. ACM-SIAM Symposium on Discrete Algorithms (SODA'96), 518-527, ACM Press, New York, and SIAM Publications, Philadelphia (1996).

132. "Effective Parallel Computations with Toeplitz and Toeplitz-like Matrices Filled with Integers", in Proc. of the AMS-SIAM Workshop "Mathematics of Numerical Analysis", Park City, Utah, July-August 1995 (J. Renegar, M. Shub, and S. Smale, editors), Lectures in Applied Math., 32, 593-641, Amer. Math. Society Press, Providence, Rhode Island (1996).

133. "Parallel Computation of Polynomial GCD and Some Related Parallel Computations over Abstract Fields", Theoretical Computer Science, 162, 2, 173-223 (1996).

134. "On Isolation of Real and Nearly Real Zeros of a Univariate Polynomial and Its Splitting into Factors" (by V. Y. Pan, M.-h. Kim, A. Sadikou, X. Huang, and A. Zheng), J. of Complexity, 12, 572-594 (1996).

135. "Graeffe's, Chebyshev-like, and Cardinal's Processes for Splitting a Polynomial into Factors" (by D. Bini and V. Y. Pan), J. of Complexity, 12, 492-511 (1996).

136. "Multidimensional Structured Matrices and Polynomial Systems" (by B. Mourrain and V. Y. Pan), Calcolo (Special Issue on Toeplitz Matrices: Structure, Algorithms and Applications), 33, 389-401 (1996).

137. "Techniques for Exploiting Structure in Matrix Formulae of the Sparse Resultant" (by I. Z. Emiris and V. Y. Pan), Calcolo (Special Issue on Toeplitz Matrices: Structure, Algorithms and Applications), 33, 353-369 (1996).

138. "Efficient Parallel Algorithms for Computing All Pair Shortest Paths in Directed Graphs" (by Y. Han, V. Y. Pan and J. Reif), Algorithmica, 17, 399-415 (1997).

139. "Solving Special Polynomial Systems by Using Structured Matrices and Algebraic Residues" (by B. Mourrain and V. Y. Pan), Proc. of the AMS-SIAM Conference on Foundation of Computational Math. (FoCM'97), (F. Cucker and M. Shub, editors), Rio-de-Janeiro, January 1997, 287-304, Springer (1997).

140. "Fast Multipoint Polynomial Evaluation and Interpolation via Computation with Structured Matrices" (by V. Y. Pan, A. Zheng, X. Huang, and Y. Yu), Annals of Numerical Math., 4, 483-510 (1997).

141. "Newton's Iteration for Inversion of Cauchy-like and Other Structured Matrices" (by V. Y. Pan, A. Zheng, X. Huang, and O. Dias), J. of Complexity, 13, 108-124 (1997).

142. "Faster Solution of the Key Equation for Decoding the BCH Error-Correcting Codes", Proc. 29th ACM Symposium on Theory of Computing (STOC'97), 168-175, ACM Press, New York (1997).

143. "Computing Exact Geometric Predicates Using Modular Arithmetic with Single Precision" (by H. Brönnimann, I. Z. Emiris, V. Y. Pan and S. Pion), Proc. 13th Ann. ACM Symp. on Computational Geometry, 174-182, ACM Press, New York (1997).

144. "The Structure of Sparse Resultant Matrices" (by I. Z. Emiris and V. Y. Pan), Proc. Annual ACM International Symposium on Symbolic and Algebraic Computations (ISSAC'97), 189-196, ACM Press, New York (1997).

145. "Fast Rectangular Matrix Multiplication and Improving Parallel Matrix Computations" (by X. Huang and V. Y. Pan), Proc. Annual ACM International Symposium on Parallel Algebraic and Symbolic Computation (PASCO'97), 11-23, ACM Press, New York (1997).

146. "Algebraic and Numerical Techniques for the Computation of Matrix Determinants" (by V. Y. Pan, Y. Yu, and C. Stewart), Computers and Mathematics (with Applications), 34, 1, 43-70 (1997).

147. "Efficient Parallel Algorithms for Computing All Pair Shortest Paths in Directed Graphs" (by Y. Han, V. Y. Pan and J. Reif), Algorithmica, 17, 399-415 (1997).

148. "New Fast Algorithms for Polynomial Interpolation and Evaluation on the Chebyshev Node Set", Computers and Math. (with Applications), 35, 3, 125-129 (1998).

149. "Approximate Polynomial Gcds, Padé Approximation, Polynomial Zeros, and Bipartite Graphs", Proc. 9th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'98), 68-77, ACM Press, New York, and SIAM Publications, Philadelphia (1998).

150. "New Transformations of Cauchy Matrices and Trummer's Problem" (by V. Y. Pan, M. Abu Tabanjeh, Z. Q. Chen, E. Landowne, and A. Sadikou), Computers and Mathematics (with Applications), 35, 12, 1-5 (1998).

151. "Asymptotic Acceleration of Solving Polynomial Systems" (by B. Mourrain and V. Y. Pan), Proc. 30th Annual ACM Symp. on Theory of Computing (STOC'98), 488-496, ACM Press, New York (1998).

152. "Planar Integer Linear Programming Is NC-equivalent to Euclidean GCD" (by D. F. Shallcross, V. Y. Pan and Y. Lin-Kriz), SIAM Journal on Computing, 27, 4, 960-971 (1998).

153. "Computing Matrix Eigenvalues and Polynomial Zeros Where the Output Is Real" (by D. Bini and V. Y. Pan), SIAM J. on Computing, 27, 4, 1099-1115 (1998).

154. "Modular Arithmetic for Linear Algebra Computations in the Real Field" (by I. Z. Emiris, V. Y. Pan and Y. Yu), J. of Symbolic Computation, 21, 1-17 (1998).

155. "Controlled Iterative Methods for Solving Polynomial Systems" (by D. Bondyfalat, B. Mourrain, and V. Y. Pan), Proc. ACM Annual Intern. Symp. on Symbolic and Algebraic Comp. (ISSAC'98), 252-259, ACM Press, New York (1998).

156. "Transformations of Cauchy Matrices for Trummer's Problem and a Cauchy-like Linear Solver" (by V. Y. Pan, M. Abu Tabanjeh, Z. Chen, S. Providence and A. Sadikou), Proc. of 5th Annual International Symposium on Solving Irregularly Structured Problems in Parallel (IREGULAR'98), (A. Ferreira, J. Rolim, H. Simon, and S.-H. Teng, editors), Lecture Notes in Computer Science, 1457, 274-284, Springer, Berlin (1998).

157. "Fast Rectangular Matrix Multiplication and Applications" (by X. Huang and V. Y. Pan), J. of Complexity, 14, 257-299 (1998).

158. "Single Precision Computation of the Sign of Algebraic Predicates", Applied Math. Letters, 11, 6, 49-50 (1998).

159. "A Unified Superfast Algorithm for Boundary Rational Tangential Interpolation Problem and for Inversion and Factorization of Dense Structured Matrices" (by V. Olshevsky and V. Y. Pan), Proc. 39th Annual IEEE Symposium on Foundation of Computer Science (FOCS'98), 192-201, IEEE Computer Society Press, Los Alamitos, California (1998).

160. "Sign Determination in Residue Number Systems" (by H. Brönnimann, I. Z. Emiris, V. Y. Pan and S. Pion), Theoretical Computer Science, 210, 1, 173-197 (1999).

161. "Certified Computation of the Sign of a Matrix Determinant" (by V. Y. Pan and Y. Yu), Proc. 10th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'99), 715-724, ACM Press, New York, and SIAM Publications, Philadelphia (1999).

162. "Approximate Real Polynomial Division via Approximate Inversion of Real Triangular Toeplitz Matrices" (by V. Y. Pan and Z. Q. Chen), Applied Math. Letters, 12, 1-2 (1999).

163. "Newton's Iteration for Structured Matrices and Linear Systems of Equations" (by V. Y. Pan, S. Branham, R. Rosholt, and A. Zheng), SIAM volume on Fast Reliable Algorithms for Matrices with Structure (T. Kailath and A. H. Sayed, editors), ch. 7, pp. 189-210, SIAM Publications, Philadelphia (1999).

164. "Parallel Matrix Multiplication on a Linear Array with a Reconfigurable Pipelined Bus System" (by K. Li and V. Y. Pan), Proc. 13th Intern. Parallel Processing Symp. and 10th Symp. on Parallel and Distributed Computing (IPPS/SPDP 1999), 31-35, IEEE Computer Soc. Press, Los Alamitos, California (April 1999).

165. "The Complexity of the Matrix Eigenproblem" (by V. Y. Pan and Z. Chen), Proc. 31st Annual ACM Symposium on Theory of Computing (STOC'99), 507-516, ACM Press, New York (1999).

166. "Superfast Computations with Singular Structured Matrices over Abstract Fields" (by V. Y. Pan, A. Zheng, M. Abutabanjeh, Z. Chen, and S. Providence), Proc. Second Workshop on Computer Algebra in Scientific Computing (CASC'99), (V. G. Ganzha, E. W. Mayr, E. V. Vorozhtsov, Editors), 323-338, Springer (May 1999).

167. "Polynomial and Rational Interpolation and Multipoint Evaluation (with Structured Matrices)" (by V. Olshevsky and V. Y. Pan), Proc. 26th Intern. Colloquium on Automata, Languages and Programming (ICALP'99), 1644, 585-594, Springer's Lecture Notes in Computer Science, Springer, Berlin (July 1999).

168. "A New Approach to Bisection Acceleration for the Symmetric Tridiagonal Eigenvalue Problem" (by V. Y. Pan and E. Linzer), Numerical Algorithms, 22, 13-39 (1999).

169. "Nearly Optimal Computations with Structured Matrices", Proc. of 11th Ann. ACM-SIAM Symposium on Discrete Algorithms (SODA'2000), 953-962, ACM Press, New York, and SIAM Publications, Philadelphia (January 2000).

170. "Approximating Complex Polynomial Zeros: Modified Quadtree (Weyl's) Construction and Improved Newton's Iteration", J. of Complexity, 16, 1, 213-264 (2000).

171. "Multivariate Polynomials, Duality and Structured Matrices" (by B. Mourrain and V. Y. Pan), J. of Complexity, 16, 1, 110-180 (2000).

172. "Lifting/Descending Processes for Polynomial Zeros and Applications" (by B. Mourrain and V. Y. Pan), J. of Complexity, 16, 1, 265-273 (2000).

173. "New Techniques for the Computation of Linear Recurrence Coefficients", Finite Fields and Their Applications, 6, 93-118 (2000).

174. "Superfast Algorithms for Cauchy-like Matrix Computations and Extensions" (by V. Y. Pan and A. Zheng), Linear Algebra and Its Applications, 310, 83-108 (2000).

175. "Matrix Structure, Polynomial Arithmetic, and Erasure-Resilient Encoding/Decoding", Proc. Intern. Symp. on Symbolic and Algebraic Computations (ISSAC'2000), 266-271, ACM Press, New York (2000).

176. "Parallel Complexity of Computations with General and Toeplitz-like Matrices Filled with Integers", SIAM J. on Computing, 30, 1080-1125 (2000).

177. "Computation of a Specified Root of a Polynomial System of Equations Using Eigenvectors" (by D. Bondyfalat, B. Mourrain, and V. Y. Pan), Linear Algebra and Its Applications, 319, 193-209 (2000).

178. "A New Proximity Test for Polynomial Zeros", Computers and Math. (with Applications), 41, 12, 1559-1560 (2001).

179. "A Homotopic Residual Correction Process", Proc. of the Second Conference on Numerical Analysis and Applications (L. Vulkov, J. Wasniewsky and P. Yalamov, editors), Lecture Notes in Computer Science, 1988, 644-649, Springer, Berlin (2001).

180. "Newton's Iteration for the Inversion of Structured Matrices" (by V. Y. Pan and Y. Rami), in "Structured Matrices: Recent Developments in Theory and Computation", 79-90 (edited by D. Bini, E. Tyrtyshnikov and P. Yalamov), Nova Science Publishers, USA (2001).

181. "Certification of Numerical Computation of the Sign of the Determinant of a Matrix" (by V. Y. Pan and Y. Yu), Algorithmica, 30, 708-724 (2001).

182. "Parallel Matrix Multiplication on a Linear Array with a Reconfigurable Pipelined Bus System" (by K. Li and V. Y. Pan), IEEE Transactions on Computing, 50, 5, 519-525 (2001).

183. "Numerical Computation of a Polynomial GCD and Extensions", Information and Computation, 167, 2, 71-85 (2001).

184. "Univariate Polynomials: Nearly Optimal Algorithms for Factorization and Rootfinding", Proc. Intern. Symp. on Symbolic Algebraic Comp. (ISSAC'01), 253-267, ACM Press, NY (2001).

185. "Nearly Optimal Algorithms for Univariate Polynomial Factorization and Rootfinding II: Computing a Basic Annulus for Splitting", Trudy of the Steklov Math. Institute of the Russian Academy of Science (in English), volume 235, pp. 211-223, Moscow (2001).

186. "Asymptotic Acceleration of the Solution of Multivariate Polynomial Systems of Equations" (by B. Mourrain, V. Y. Pan and O. Ruatta), Proceedings of the Smalefest 2000 (F. Cucker and M. Rojas, editors), Foundations of Computational Math. Series, 267-294, World Scientific, New Jersey (2002).

187. "Nearly Optimal Algorithms for Numerical Univariate Polynomial Factorization and Rootfinding I: Splitting a Polynomial into Factors over an Annulus", Proceedings of the Smalefest 2000 (F. Cucker and M. Rojas, editors), Foundations of Computational Math. Series, 325-353, World Scientific, New Jersey (2002).

188. "Structured Matrices and Newton's Iteration: Unified Approach" (by V. Y. Pan, Y. Rami and X. Wang), Linear Algebra and Its Applications, 343/344, 233-265 (2002).

189. "Randomized Acceleration of Fundamental Matrix Computations", Proc. of Symposium on Theoretical Aspects of Computer Science (STACS '02), Lecture Notes in Computer Science, 2285, 215-226, Springer, Berlin (2002).

190. "Symbolic and Numerical Methods for Exploiting Structure in Constructing Resultant Matrices" (by I. Z. Emiris and V. Y. Pan), Journal of Symbolic Computation, 33, 393-413 (2002).

191. "Acceleration of Euclidean Algorithm and Extensions" (by V. Y. Pan and X. Wang), Proc. International Symp. on Symbolic and Algebraic Computation (ISSAC '02), 207-213, ACM Press, New York (2002).

192. "Univariate Polynomials: Nearly Optimal Algorithms for Numerical Factorization and Root-Finding", J. of Symbolic Computation, 33, 5, 701-733 (2002).

193. "Can We Optimize Toeplitz/Hankel Computations?" in Proc. the 5th International Workshop on Computer Algebra in Scientific Computing (CASC'02), (edited by E. W. Mayr, V. G. Ganzha, and E. V. Vorozhtzov), 253-264, Technische Univ. of Mnchen, Germany (2002).

194. "Accelerated Solution of Multivariate Polynomial Systems of Equations" (by B. Mourrain, V. Y. Pan and O. Ruatta), SIAM J. on Computing, 32, 2, 435-454 (2003).

195. "Inversion of Displacement Operators" (by V. Y. Pan and X. Wang), SIAM J. on Matrix Analysis and Applications, 24, 3, 660-677 (2003).

196. "Matrix Structure and Loss-Resilient Encoding/Decoding", Computers and Mathematics (with Applications), 46, 493-499 (2003).

197. "Acceleration of Euclidean Algorithm and Rational Number Reconstruction" (by X. Wang and V. Y. Pan), SIAM J. of Computing, 32, 2, 548-556 (2003).

198. "Improved Computation of Determinants and Resultants" (by I. Z. Emiris and V. Y. Pan), Proc. of the 6th Intern. Workshop on Computer Algebra in Scientific Computing (CASC '03), (edited by E.W. Mayr, V.G. Ganzha, and E.V. Vorozhtzov), 81-94, Technische Univ. Mnchen (2003).

199. "Inverse Power and Durand-Kerner Iteration for Univariate Polynomial Root-Finding" (by D. A. Bini, L. Gemignani and V. Y. Pan), Computers and Mathematics (with Applications), 47, 2/3, 447-459 (2004).

200. "On Rational Number Reconstruction and Approximation" (by V. Y. Pan and X. Wang), SIAM J. on Computing, 33, 2, 502-503 (2004).

201. "Iterative Inversion of Structured Matrices" (by V. Y. Pan, M. Van Barel, X. Wang and G. Codevico), Theoretical Computer Science, 315, 2-3, 581-592 (2004).

202. "The Least-Squares Compression Policy for Newton-like Iteration for Structured Matrices" (by G. Codevico, V. Y. Pan, M. Van Barel, X. Wang, and A.-L. Zheng) in Proceedings of the 6th International Mathematica Symposium (IMS 2004), (edited by C. Jacob and P. Mitic), Banff, Alberta, Canada (August 2004).

203. "Improved Initialization of the Accelerated and Robust QR-like Polynomial Root-finding" (by D. A. Bini, L. Gemignani, and V. Y. Pan), Electronic Transactions on Numerical Analysis, 17, 195-205 (2004). (Proc. version in Proceedings of the 7th International Workshop on Computer Algebra in Scientific Computing (CASC'04), St. Petersburg, Russia (2004), (edited by E. W. Mayr, V. G. Ganzha, and E. V. Vorozhtzov), 39-50, Technische Univ. Mnchen, Germany (2004).)

204. "An Efficient Solution for Cauchy-like Systems of Linear Equations" (by Z. Chen and V. Y. Pan), Computers and Mathematics with Applications, 48, 529-537 (2004).

205. "Newton-like Iteration Based on Cubic Polynomials for Structured Matrices" (by G. Codevico, V. Y. Pan, and M. Van Barel), Numerical Algorithms, 36, 365-380 (2004).

206. "On Theoretical and Practical Acceleration of Randomized Computation of the Determinant of an Integer Matrix", Zapiski Nauchnykh Seminarov POMI (in English), Vol. 316, 163-187, St. Petersburg, Russia (2004).

207. "Can the TPR1 Structure Help Us to Solve the Algebraic Eigenproblem?", in Proc. of the 16th Ann. ACM-SIAM Symposium on Discrete Algorithms (SODA'05), 1069-1078, ACM Press, New York, and SIAM Publications, Philadelphia (2005).

208. "Fast and Stable QR Eigenvalue Algorithms for Generalized Semiseparable Matrices and Secular Equation" (by D. A. Bini, L. Gemignani and V. Y. Pan), Numerische Mathematik, 3, 373-408 (2005).

209. "Improved Algorithms for Computing Determinants and Resultants" (by I. Z. Emiris and V. Y. Pan), J. of Complexity, 21, 1, 43-71 (2005).

210. "Coefficient-free Adaptation of Polynomial Root-finders", Computers and Mathematics with Applications, 50, 263-269 (2005).

211. "Amended DSeSC Power Method for Polynomial Root-finding", Computers and Mathematics with Applications, 49, 9-10, 1515-1524 (2005).

212. "Homotopic Residual Correction Algorithms for General and Structures Matrices" (by V. Y. Pan, M. Kunin, R. Rosholt, and H. Kodal), Math. of Computation, 75, 345-368 (2006).

213. "Linking the TPR1, DPR1 and Arrow-head Matrix Structures" (by V. Y. Pan, B. Murphy, R. E. Rosholt, Y. Tang, X. Yan, and W. Cao), Computers and Mathematics with Applications, 52, 10-11, 1603-1608 (2006).

214. "Real Root-finding" (by V. Y. Pan, G. Qian, B. Murphy, R. E. Rosholt, and Y. Tang), Proceedings of the Third International Workshop on Symbolic–Numeric Computation (SNC 2007), July 2007, London, Ontario, Canada (Jan Verschelde and Stephen Watt, editors), 161-169, ACM Press, New York (2007).

215. "Null Space and Eigenspace Computation with Additive Preconditioning" (by V. Y. Pan and X. Yan), Proceedings of the Third International Workshop on Symbolic–Numeric Computation (SNC'2007), July 2007, London, Ontario, Canada (Jan Verschelde and Stephen Watt, editors), 170-179, ACM Press, New York (2007).

216. "The Schur Aggregation for Solving Linear Systems of Equations" (by V. Y. Pan, B. Murphy, R. E. Rosholt, and M. Tabanjeh), Proceedings of the Third International Workshop on Symbolic–Numeric Computation (SNC'2007), July 2007, London, Ontario, Canada (Jan Verschelde and Stephen Watt, editors), 180-188, ACM Press, New York (2007).

217. "New Homotopic/Factorization and Symmetrization Techniques for Newton's and Newton's Structured Iteration", Computers Math. with Applications, 54, 721-729 (2007).

218. "Additive Preconditioning and Aggregation in Matrix Computations" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, I. Taj-Eddin, Y. Tang, and X. Yan), Computers and Mathematics with Applications, 55, 8, 1870–1886 (2008).

219. "Eigen-solving via Reduction to DPR1 Matrices" (by V. Y. Pan, B. Murphy, R. Rosholt, Y. Tang, X. Wang, and A. Zheng), Computers and Mathematics with Applications, 56, 166–171 (2008).

220. "Additive Preconditioning for Matrix Computations" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, Y. Tang, and X. Yan), in Proc. of the Third International Computer Science Symposium in Russia (CSR'2008), Lecture Notes in Computer Science (LNCS), 5010, 372–383 (2008).

221. "Degeneration of Integer Matrices Modulo an Integer" (by V. Y. Pan and X. Wang), Linear Algebra and Its Applications, 429, 2113-2130 (2008).

222. "Schur Aggregation for Linear Systems and Determinants" (by V. Y. Pan, D. Grady, B. Murphy, G. Qian, R. E. Rosholt, and A. Ruslanov), Theoretical Computer Science, Special Issue on Symbolic-Numerical Algorithms (D.A. Bini, V. Y. Pan, and J. Verschelde, editors), 409, pp. 255-268 (2008).

223. "Additive Preconditioning, Eigenspaces, and the Inverse Iteration" (by V. Y. Pan and X. Yan), Linear Algebra and Its Applications, 430, 186-203 (2009).

224. "A New Error-free Floating-Point Summation Algorithm" (by V. Y. Pan, B. Murphy, G. Qian, and R. E. Rosholt), Computers and Mathematics with Applications, 57, 560-564 (2009).

225. "Preconditioning, Randomization, Solving Linear Systems, Eigen-Solving, and Root-Finding" (by V. Y. Pan, G. Qian, and A.-L. Zheng), Proc. International Symposium on Symbolic-Numerical Computations (SNC'2009), Kyoto, Japan, August 2009, (edited by Hiroshi Kai and Hiroshi Sekigawa), pp. 5-6, ACM Press, New York(2009).

226. "Nearly Optimal Symbolic-Numerical Algorithms for Structured Integer Matrices and Polynomials" (by V. Y. Pan, B. Murphy, and R. E. Rosholt), Proc. Intern. Symp. Symbolic-Numerical

Comp. (SNC'2009), Kyoto, Japan, August 2009, (edited by Hiroshi Kai and Hiroshi Sekigawa), 105-113, ACM Press, New York (2009).

227. "Root Squaring with DPR1 Matrices", in Zapiski Nauchnykh Seminarov POMI (in English), volume 373 (edited by N. N. Vasiliev and A. M. Vershik), pp. 189-193 (2009).

228. "Solving Homogeneous Linear Systems with Randomized Preprocessing" (by V. Y. Pan and G. Qian), Linear Algebra and Its Applications, 432, 3272-3318 (2010).

229. "Unified Nearly Optimal Algorithms for Structured Matrices" (by V. Y. Pan, B. Murphy, and R. E. Rosholt), Operator Theory: Advances and Applications, 199, 359-375, Birkhauser, Basel (2010).

230. "Additive Preconditioning for Matrix Computations" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, Y. Tang, and X. Yan), Linear Algebra and Its Applications, 432, 1070-1089 (2010).

231. "Newton's Iteration for Matrix Inversion, Advances and Extensions", pp. 364-381, in MATRIX METHODS: THEORY, ALGORITHMS AND APPLICATIONS (dedicated to the Memory of Gene Golub, edited by Vadim Olshevsky and Eugene Tyrtyshnikov), World Scientific Publishing, New Jersey, ISBN-13 978-981-283-601-4, ISBN-10-981-283-601-2 (2010).

232. "Advancing Matrix Computations with Randomized Preprocessing" (by V. Y. Pan, G. Qian, and A.-L. Zheng), in Proc. of the Fifth International Computer Science Symposium in Russia (CSR'2010), Kazan, Russia, June 2010 (Farid Ablaev and Ernst W. Mayr, editors), Lecture Notes in Computer Science (LNCS), pages 303-314, Springer, Berlin (2010).

233. "Real and Complex Polynomial Root-Finding with Eigen-Solving and Preprocessing" (by V. Y. Pan and A.-L. Zheng), (edited by Stephen Watt), in Proc. International Symp. on Symbolic and Algebraic Computation (ISSAC'2010), pages 219-226, ACM Press, New York (July 2010).

234. "Matrix Computations and Polynomial Root-finding with Preprocessing" (by V. Y. Pan, G. Qian, A.-L. Zheng, and Z. Chen), Linear Algebra and Its Applications, 434, 854–879 (2011).

235. "New Progress in Real and Complex Polynomial Root-Finding" (by V. Y. Pan and A.-L. Zheng), Computers and Math. (with Applications), 61, 1305-1334 (2011).

236. "Univariate Polynomial Root-Finding by Arming with Constraints", in Proc. International Symposium on Symbolic-Numerical Computations (SNC'2011), San Jose, California, 2011 (edited by Marc Moreno Masa), 112-121, ACM Press, New York (2011).

237. "Randomized Preconditioning of the MBA Algorithm" (by V. Y. Pan, G. Qian, and A.-L. Zheng), in Proc. International Symp. on Symbolic and Algebraic Computation (ISSAC'2011), San Jose, California, June 2011 (edited by Anton Leykin), 281-288, ACM Press, New York (2011).

238. "Nearly Optimal Solution of Rational Linear Systems of Equations with Symbolic Lifting and Numerical Initialization", Computers and Mathematics with Applications, 62, 1685-1706 (2011).

239. "Root-finding by Expansion with Independent Constraints" (by V. Y. Pan and A.-L. Zheng), Computers and Mathematics with Applications, 62, 3164-3182 (2011).

240. "A Note on the Paper by Murat Cenk and Ferruh Ozbudak "Multiplication of Polynomials Modulo x^n", Theoret. Comput. Sci. 412 (2011) 3451-3462", Theoret. Comput. Sci. 428, page 91 (2012).

241. "Efficient Polynomial Root-refiners: A Survey and New Record Efficiency Estimate" (by J. M. McNamee and V. Y. Pan), Computers and Mathematics with Applications, 63, 239-254 (2012).

242. "Root-refining for a Polynomial Equation", Proceedings of the 15th International Workshop on Computer Algebra in Scientific Computing (CASC'2012), (V. P. Gerdt, V. Koepf, E. W. Mayr, and E. V. Vorozhtsov, editors), Lecture Notes in Computer Science, 7442, 271-282, Springer, Heidelberg (2012).

243. "Real and Complex Polynomial Root-finding via Eigen-solving and Randomization" (by V. Y. Pan, G. Qian, and A.-L. Zheng), Proceedings of the 15th International Workshop on Computer Algebra in Scientific Computing (CASC'2012), (V. P. Gerdt, V. Koepf, E. W. Mayr, and E. V. Vorozhtsov, editors), Lecture Notes in Computer Science, 7442, 283-293, Springer, Heidelberg (2012).

244. "Solving Linear Syste ms of Equations with Randomization, Augmentation and Aggregation" (by V. Y. Pan and G. Qian), Linear Algebra and Its Applications", 437, 2851-2876 (2012).

245. "Randomized Preconditioning versus Pivoting" (by V. Y. Pan, G. Qian, and A.-L. Zheng), Linear Algebra and Its Applications, 438, 4, 1883-1889 (2013).

246. "On the Boolean Complexity of the Real Root Refinement" (by V. Y. Pan and E. P. Tsigaridas), in Proc. International Symp. on Symbolic and Algebraic Computations, (ISSAC'2013), Boston, Massachusetts, June 2013 (M. Kauers, editor), 299-306, ACM Press, New York (2013).

247. "Polynomial Evaluation and Interpolation and Transformations of Matrix Structures", Proceedings of the 16th International Workshop on Computer Algebra in Scientific Computing (CASC'2013), (V. P. Gerdt, V. Koepf, E. W. Mayr, and E. V. Vorozhtsov, editors), Lecture Notes in Computer Science, 8136, 273-287, Springer, Heidelberg (2013).

248. "Fast Approximate Computations with Cauchy Matrices, Polynomials and Rational Functions", Proc. of the Ninth International Computer Science Symposium in Russia (CSR'2014), (E. A. Hirsch et al., editors), Moscow, Russia, June 2014, Lecture Notes in Computer Science (LNCS), 8476, pp. 287-300 Springer International Publishing, Switzerland (2014).

249. "Estimating the Norms of Circulant and Toeplitz Random Matrices and Their Inverses" (by V. Y. Pan, John Svadlenka, and Liang Zhao), accepted by Linear Algebra and Its Applications, 2014. Also Tech. Report TR 2014009, *PhD Program in Comp. Sci.*, *Graduate Center, CUNY*, 2014. Available at http://www.cs.gc.cuny.edu/tr/techreport.php?id=473

and at arxiv:1311.3730[math.NA]

250. "Transformations of Matrix Structures Work Again", accepted by Linear Algebra and Its Applications, 2014. Available at arxiv:1311.3729[math.NA]

251. "Nearly Optimal Computations with Structured Matrices" by Victor Y. Pan and Elias Tsigaridas, Proc. of the International Conference on Symbolic Numeric Computation (SNC 2014), ACM Press, New York, 2014.

Also April 18, 2014, arXiv:1404.4768 [math.NA] and http://hal.inria.fr/hal-00980591

252. "Accelerated Approximation of the Complex Roots of a Univariate Polynomial" by Victor Y. Pan and Elias Tsigaridas, Proc. of the International Conference on Symbolic Numeric Computation (SNC 2014), ACM Press, New York, 2014.

Also April 18, 2014, arXiv : 1404.4775 [math.NA] and http://hal.inria.fr/hal-00980584

253. "Global Newton Iteration over Archimedean and non-Archimedean Fields" by Jonathan D. Hauenstein, Victor Pan, Agnes Szanto, accepted by CASC 2014. Also April 17, 2014, arXiv:1404.5525 [math.NA]

254. "Real Polynomial Root-finding by Means of Matrix and Polynomial Iterations", by V. Y. Pan, accepted by CASC 2014 subject to a revision. Also Tech. Report TR 2014007, *PhD Program in Comp. Sci.*, *Graduate Center, CUNY*, 2014. Available at http://www.cs.gc.cuny.edu/tr/techreport.php?id=471

Reports and Manuscripts

1. "The Complexity of the Algebraic Eigenproblem" (by V. Y. Pan, Z. Chen and A. Zheng), MSRI Preprint 1998-71, Mathematical Sciences Research Institute, Berkeley, California (1998).

2. "New Deterministic Parallel Algorithms for the Characteristic Polynomial of a Matrix over Abstract Fields", MSRI Preprint 1999-011, Mathematical Sciences Research Institute, Berkeley, California (1999).

3. "Computations with Structured Matrices" (by V. Y. Pan, B. Murphy, and R. Rosholt), MSRI Preprint 1999-021, Mathematical Sciences Research Institute, Berkeley, California (1999).

4. "A Unified Superfast Divide-and-Conquer Algorithm for Structured Matrices", MSRI Preprint 1999-033, Mathematical Sciences Research Institute, Berkeley, California (1999).

5. "Residual Correction Algorithms for General and Structures Matrices" (by V. Y. Pan, M. Kunin, R. Rosholt, and H. Cebecioglu), Technical Report 2002020, Ph.D. Program in Computer Science, The Graduate Center of the City University of New York (2002).

6. "Nearly Optimal Toeplitz/Hankel Computations" (by V. Y. Pan, B. Murphy, R. E. Rosholt, and X. Wang), Technical Reports 2002001, 200217, and 2004013, Ph.D. Program in Computer Science, The Graduate Center of the City University of New York (2002 and 2004).

7. "Superfast Algorithms for Singular Integer Toeplitz/Hankel-like Matrices", Technical Reports 2002002 and 2003004, Ph.D. Program in Computer Science, The Graduate Center of the City University of New York (2002 and 2003).

8. "Additive Preconditioning in Matrix Computations" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, Y. Tang, and X. Yan), Technical Reports 2005009, 2006006, and 2007002, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York (2005-2007).

9. "Additive Preconditioning for Matrix Computations" (by V. Y. Pan, D. Ivolgin, B. Murphy, R. E. Rosholt, Y. Tang, and X. Yan) Technical Report TR 2007003, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York (2007).

10. "Null Aggregation and Extensions" , Technical Report TR 2007009, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York (2007).

11. "Numerical Computation of Determinants with Additive Preconditioning" (by V. Y. Pan, B. Murphy, G. Qian, R. E. Rosholt, and I. Taj-Eddin), Technical Report TR 2007011, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York (2007).

12. "Additive Preconditioning and Aggregation in Matrix Computations" (by V. Y. Pan, B. Murphy, R. E. Rosholt, D. Ivolgin, G. Qian, I. Taj-Eddin, Y. Tang, and X. Yan), PAMM (a Journal of GAMM), vol. 7, issue 1, pages 1021201-1021202, Wiley VCH Verlag (2008).

13. "New Structured Matrix Methods for Real and Complex Polynomial Root-finding" (by Victor Y. Pan, Ai-Long Zheng), Nov. 23, 2013, arXiv 1311.6077 [math.NA]

14. "Supporting GENP with Random Multipliers" (by Victor Y. Pan, Guoliang Qian, and Xiaodong Yan), Dec 13, 2013, arXiv 1312.3805 [math.NA]

15. "Fast Approximation Algorithms for Computations with Cauchy Matrices, Polynomials, and Rational Functions", by V. Y. Pan, Tech. Report TR 2014005, *PhD Program in Comp. Sci., Graduate Center, CUNY*, 2014. Available at http://www.cs.gc.cuny.edu/tr/techreport.php?id=469

16. "New Algoirthms in the Frobenius Matrix Algebra" (by Victor Y. Pan and Ai-Long Zheng), Technical Report TR 2014006, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York (2014). Available at http://www.cs.gc.cuny.edu/tr/techreport.php?id=470

17. "Supporting GENP and Low-rank Approximation with Random Multipliers", by Victor Y. Pan, Guoliang Qian, and Xiaodong Yan, Tech. Report TR 2014008, *PhD Program in Comp. Sci., Graduate Center, CUNY*, 2014. Available at http://www.cs.gc.cuny.edu/tr/techreport.php?id=472

TALKS at Symposia/Conferences/Workshops/Colloquia

1991

2nd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'91), San Francisco, California, January 1991. Refereed paper was accepted by Program Committee.

Fifth Biennial Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, April 1991. Refereed paper was accepted by Program Committee.

18th International Colloquium on Automata, Languages and Programming (ICALP'91), Madrid, Spain, July 1991. Refereed paper was accepted by Program Committee.

3rd Annual ACM Symposium on Parallel Algorithms and Architectures (SPAA'91), Hilton Head, South Carolina, July 1991. Refereed paper was accepted by Program Committee.

4th SIAM Conference on Applied Linear Algebra, Minneapolis, Minnesota, September 1991. Two talks at mini-symposia.

3rd IEEE Symposium on Parallel and Distributed Algorithms, Dallas, Texas, December 1991. Refereed paper was accepted by Program Committee.

1992

3rd Annual ACM-SIAM Symposium on Discrete Algorithms, Orlando, Florida, January 1992. Refereed paper was accepted by Program Committee.

Israel Symposium on the Theory of Computing and Systems (ISTCS'92), Haifa, Israel, May 1992. Refereed paper was accepted by Program Committee.

4th Annual ACM Symposium on Parallel Algorithms and Architectures (SPAA'92), San Diego, California, June-July 1992. Two refereed papers were accepted by Program Committee.

33rd Annual IEEE Conference on Foundations of Computer Science (FOCS'92), Pittsburgh, Pennsylvania, October 1992. Three refereed papers were accepted by Program Committee.

Second Biennial Copper Mountain Conference on Iterative Methods, Copper Mountain, Colorado, April 1992. Refereed paper was accepted by Program Committee.

1993

Panamerican Workshop for Applied and Computational Mathematics, Caracas, Venezuela, January 1993. Three refereed papers were accepted by Program Committee.

Workshop on Applicable Algebra, Obervolfach, Germany, February 1992. Invited talk (30 minutes).

Annual ACM International Symposium on Symbolic and Algebraic Computations (ISSAC'93), Kiev, Ukraine, July 1993. Refereed paper was accepted by Program Committee.

3rd SIAM Conference on Linear Algebra, Seattle, Washington, August 1993. Invited talk at mini-symposium (30 minutes).

884th Meeting of the American Math. Society, Syracuse, New York, September 1993. Invited talk (30 minutes).

34th Annual IEEE Conference on Foundations of Computer Science, Palo Alto, California, November 1993. Refereed paper was accepted by Program Committee.

Workshop on Parallel Algorithms, DIMACS, Rutgers University, New Jersey, November 1993. Invited talk (30 minutes).

1994

5th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'94). Two refereed papers were accepted by Program Committee.

Third Biennial Colorado Conference on Iterative Methods (CCIM'94), Breckenridge, Colorado, April 1994. Refereed paper was accepted by Program Committee.

5th SIAM Conference on Applied Linear Algebra, Snowbird, Utah, June 1994. Three refereed papers were accepted by Program Committee.

First International Symposium on Parallel Algebraic and Symbolic Computation (PASCO'94), Linz, Austria, September 1994. Refereed paper was accepted by Program Committee.

35th Annual IEEE Conference on Foundation of Computer Science (FOCS'94), Santa Fe, New Mexico, November 1994. Refereed paper was accepted by Program Committee.

1995

Annual ACM Symposium on Theory of Computing (STOC'95), Las Vegas, Arizona, May 1995. Refereed paper was accepted by Program Committee.

25th AMS-SJAM Summer Seminar on Mathematics of Numerical Analysis, Park City, Utah, July-August 1995. Invited plenary talk (1 hour).

Seminar on Real Computation and Complexity, Schloss Dagstuhl, Germany, November 1995. Invited talk (45 minutes).

1996

7th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'96), Atlanta, Georgia, January 1996. Refereed paper was accepted by Program Committee.

Fourth Biennial Copper Mountain Conference on Iterative Methods, Copper Mountain, Colorado, April 1996. Refereed paper was accepted by Program Committee.

NATO Advanced Study Workshop on Algorithms for Sparse Large Scale Linear Systems, Las Palmas de Grand Canaria, Spain, June 1996. Invited Talk (1 hour).

Workshop on Symbolic - Numeric Algebra for Polynomials (SNAP'96), INRIA Sophia Antipolis, France, July 1996. Invited talk (45 minutes).

International Conference on Structured Matrices, Cortona, Italy, September 1996. Two refereed papers were accepted by Program Committee.

1997

International Conference on Foundation of Computational Mathematics (FoCM), Rio de Janeiro, Brazil, January 1997. Invited semi-plenary talk (50 minutes) and invited talk (30 minutes).

FRISCO Open Workshop 97, INRIA Sophia Antipoles, France, March 1997. Invited talk (20 minutes).

The 29th Annual ACM Symposium of Theory of Computing (STOC'97), El Paso, Texas, May 1997. Refereed paper was accepted by Program Committee.

The 13th Annual ACM Symposium on Computational Geometry, Nice, France, June 1997. Refereed paper was accepted by Program Committee.

Faddeev Memorial International Algebraic Conference, St. Petersburg, Russia, June 1997. Invited talk (45 minutes).

Annual ACM International Symposium on Symbolic and Algebraic Computation (ISSAC'97), Maui, Hawaii, August 1997. Refereed paper was accepted by Program Committee.

Second ACM International Symposium on Parallel Symbolic Computation (PASCQ'97), Maui, Hawaii, August 1997. Refereed paper was accepted by Program Committee.

1998

9th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'98), January 1998, San Francisco, California. Refereed paper was accepted by Program Committee.

Fifth Biennial Copper Mountain Conference on Iterative Methods, March 1998. Copper Mountain, Colorado. Refereed paper was accepted by Program Committee.

933rd AMS Meeting, April 1998, Philadelphia. Invited talk at mini-symposium.

30th Annual ACM Symposium on Theory of Computing (STOC'98), May 1998, Dallas, Texas. Refereed paper was accepted by Program Committee.

Kurosh Memorial Algebraic Conference, June 1998, Moscow, Russia. Invited talk at mini-symposium.

International Seminar on Real Computation and Complexity, June 1998, Dagstuhl, Germany. Invited talk (45 minutes).

SIAM Annual Meeting, July 1998, Toronto, Canada. Invited talk at mini-symposium.

Annual International Conference IMACS on Application of Computer Algebra (ACA'98), August 1998, Praha, Czech Republic. Two invited talks at two mini-symposia.

Annual ACM International Symposium on Symbolic and Algebraic Computations (ISSAC'98), August 1998, Rostock, Germany. Refereed paper was accepted by Program Committee.

5th International Symposium on Solving Irregularly Structured Problems Parallel (IRREGULAR'98), August 1998, Berkeley, California. Refereed paper was accepted by Program Committee.

MSRI Workshop on Solving Systems of Equations, September 1998, Berkeley, California. Invited talk (30 minutes).

39th Annual IEEE Conference on Foundations of Computer Science (FOCS'98), October 1998, Palo Alto, California. Refereed paper was accepted by Program Committee.

1999

10th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'99), January 1999, Baltimore, Maryland. Refereed paper was accepted by Program Committee.

13th International Parallel Processing Symposium and 10th Symposium on Parallel and Distributed Computing (IPPS/SPDP'99), San Juan, Puerto Rico, April 1999. Refereed paper was accepted by Program Committee.

31st Annual ACM Symposium on Theory of Computing (STOC'99), May 1999, Atlanta, Georgia. Refereed paper was accepted by Program Committee.

2nd International Workshop on Computer Algebra in Scientific Computing (CASC'99), June 1999, Munich, Germany. Invited lecture (45 minutes).

Annual International Conference IMACS on Application of Computer Algebra (ACA'99), June 1999, El Escorial, Madrid, Spain. Two invited lectures at two mini-symposia.

1999 AMS-IMS-SIAM Summer Research Conference on Structured Matrices in Operator Theory, Numerical Analysis, Control, Signal and Image Processing, June-July 1999, Boulder, Colorado. Invited lecture (45 minutes).

Annual International Colloquium of Automata, Languages, and Programming (ICALP'99), July 1999, Praha, Czech Republic. Refereed paper was accepted by Program Committee.

International Symposium on Foundations of Computational Mathematics (FoCM'99), July 1999, Oxford, England. Four invited talks at three mini-symposia.

2000

11th Annual ACM-SIAM Symposium on Discrete Algorithm (SODA'2000), January 2000, San Francisco. Refereed paper was accepted by Program Committee.

Sixth Biennial Copper Mountain Conference on Iterative Methods (Copper'2000), April 2000, Copper Mountain, Colorado. Refereed paper was accepted by Program Committee.

2nd Conference on Numerical Analysis and Applications (NAA'2000), June 2000, Rousse, Bulgaria. Invited plenary talk (1 hour).

Annual International Conference IMACS on Application of Computer Algebra (ACA'2000), June 2000, St. Petersburg, Russia. Invited plenary talk (50 minutes) and invited talk at mini-symposium.

14th International Symposium on Math. Theory of Network and Systems (MTNS'2000), June 2000, Perpignan, France. Invited talk at mini-symposium.

The Smalefest Conference in Hong Kong, July 2000. Two papers were refereed and accepted for the proceedings.

Annual ACM International Symposium on Symbolic and Algebraic Computation (ISSAC'2000), August 2000, St. Andrew's, Scotland. Refereed paper was accepted by Program Committee.

2001

International Conference on Complex Analysis and Applications. Moscow, Russia, June 2001. Invited talk (45 minutes) and a refereed paper accepted for the proceedings.

SIAM Annual Meeting, San Diego, California, July 2001. Invited talk at mini-symposium.

Annual ACM International Symposium on Symbolic and Algebraic Computations (ISSAC'2001), London, Ontario, Canada, July 2001. Refereed paper was accepted by the Program Committee.

2001 AMS-IMS-SIAM Summer Research Conference on Fast Algorithms in Math. Computer Science, and Engineering. S. Hadley, Massachusetts, August 2001. Invited Lecture (45 minutes).

2002

Annual International Symposium on Theoretical Aspects of Computer Science (STACS'2002). March 2002, Juan Les Pins, France. Refereed paper was accepted by the Program Committee.

Seventh Biennial Copper Mountain Conference on Iterative Methods (Copper'2002), March-April 2002, Copper Mountain, Colorado. Refereed paper was accepted by the Program Committee.

International Conference on Structured Matrices, May-June 2002, Hong Kong, China. Invited talk at a mini-symposium.

First Joint Meeting of the American Math. Society and Unione Matematica Italiana (AMS/UMI'2002), Pisa, Italy, June 2002. Invited talks at a session.

Annual International Conference IMACS on Application of Computer Algebra (ACA'2002), Volos, Greece, June 2002. Two invited talks at two mini-symposia.

Annual ACM Intern. Symp. Symbolic and Algebraic Computation (ISSAC'2002), Lille, France, July 2002. Refereed paper was accepted by the Program Committee.

International Symposium on Foundations of Computational Mathematics (FoCM'2002), Minneapolis, Minnesota, August 2002. Two invited talks at a mini-symposium.

5th Annual Conference on Computer Algebra in Scientific Computing (CASC'2002), Yalta, Crimea, Ukrain, September 2002. Refereed paper was accepted by the Program Committee.

2003

International Seminar on Matrix Methods and Operator Equations, Moscow, Russia, June 2003. Invited talk.

Workshop on Nonlinear Approximation in Numerical Analysis, Moscow, Russia, June 2003. Invited talk.

SIAM Conference on Linear Algebra (LA'03), Williamsburg, Virginia, July 2003. Invited talk at a mini-symposium and a contributed talk.

9th Annual International Conference on Applications of Computer Algebra (ACA'2003), Raleigh, North Carolina, July 2003. An invited talk at mini-symposium.

6th Annual Conference on Computer Algebra in Scientific Computing (CASC'2003), Passau, Germany, September 2003. Refereed paper was accepted by the Program Committee.

2004

Eighth Biennial Copper Mountain Conference on Iterative Methods (Copper'2004), March-April 2004, Copper Mountain, Colorado. Refereed paper was accepted by the Program Committee.

Mathematics of Computer Algebra and Analysis (MOCAA'2004). A talk by invitation by Program Committee.

16th International Symposium on Math. Theory of Network and Systems (MTNS'2004), July 2004, Leuven, Belgium. Refereed paper was accepted by the Program Committee.

6th Annual Conference on Computer Algebra in Scientific Computing (CASC'2003), July 2004, St. Petersburg, Russia. Refereed paper was accepted by the Program Committee.

6th International Mathematica Symposium (IMS 2004), August 2004, Banff, Canada, Refereed paper was accepted by the Program Committee.

2nd International Conference on Structured Numerical Linear Algebra Problems: Algorithms and Applications (Cortona 2004), September 2004, Cortona, Italy. Invited talk (30 minutes).

2005

International Conference on Matrix Methods and Operator Equations, Moscow, Russia, June 2005. Invited talk (30 minutes).

16th Annual ACM-SIAM Symposium on Discrete Algorithm (SODA'2005), January 2005, Vancouver, Canada. Refereed paper was accepted by Program Committee.

International Conference on Foundation of Computational Mathematics (FoCM'2005), July 2005, Santander, Spain. Two invited talks (50 minutes and 25 minutes) at two mini-symposia.

International Workshop on Symbolic-Numeric Computation, July 2005, Xi'an, China. Invited plenary talk (one hour).

Conference on Applications of Computer Algebra, July-August 2005, Nara, Japan. Invited talk at mini-symposium.

2006

Nineth Biennial Copper Mountain Conference on Iterative Methods (CMCIM'06), April 2006, Copper Mountain, Colorado. Refereed paper was accepted by the Program Committee.

International Conference on Algebraic Computational Geometry, Nice, France, June 2006. Invited talk (30 minutes).

Conference on Applications of Computer Algebra, Varna, Bulgaria, June 2006. Two invited talks at a mini-symposium.

SIAM Annual Meeting, Boston, Massachusetts, July 2006. Refereed paper was accepted by the Program Committee.

2007

The 6th International Congress on Industrial and Applied Mathematics (ICIAM'2007), Zurich, Switzerland, July 2007. Invited talk at a mini-symposium.

2nd International Conference on Matrix Methods and Operator Equations, Moscow, Russia, July 2007. Invited talk (30 minutes).

International Workshop on Symbolic-Numerical Computations (SNC'2007), London, Ontario, Canada, July 2007. Three refereed papers were accepted by the Program Committee.

2008

Tenth Biennial Copper Mountain Conference on Iterative Methods (CMCIM'06), April 2008, Copper Mountain, Colorado. Refereed paper was accepted by the Program Committee.

Third International Computer Science Symposium in Russia (CSR'2008), June 2008, Moscow, Russia. Refereed paper was accepted by the Program Committee.

The XIX International Workshop on Operator Theory and its Applications, July 2008, Williamsburg, Virginia. Invited talk at a mini-symposium.

Structured Linear Algebra Problems: Analysis, Algorithms, and Applications, Cortona, Italy, September, 2008. Invited talk, 30 minutes.

2009

International Conference on Polynomial Computer Algebra, St. Petersburg, Russia, April 2009. Invited Speaker.

The 3rd International Workshop on Symbolic-Numeric Computation (SNC 2009), Kyoto, Japan, August 2009. Invited talk (1 hour) and a refereed paper was accepted by the Program Committee.

SIAM Conference on Applied Linear Algebra, Oct. 26-29, Seaside, California, Oct. 26-29. Two invited talks at two mini-symposia.

2010

International Conference on Polynomial Computer Algebra, St. Petersburg, Russia, April 2010. Invited Speaker.

The Fifth International Computer Science Symposium in Russia (CSR'2010), June 2010, Kazan, Russia. Refereed paper was accepted by the Program Committee.

The 16-th ILAS Conference, Pisa, Italy, June 2010. Invited talk, 30 minutes.

Annual ACM International Symposium on Symbolic and Algebraic Computation (ISAAC'2001), Munich, Germany, July 2010. Refereed paper was accepted by the Program Committee.

2011

Annual ACM SIGSAM International Symposium on Symbolic and Algebraic Computation (ISAAC'2011), San Jose, CA, June 8-11, 2011. Refereed paper was accepted by the Program Committee.

The 4th International Workshop on Symbolic-Numeric Computation (SNC'2011), San Jose, CA, June 7-9, 2011. Refereed paper was accepted by the Program Committee.

3rd International Conference on Matrix Methods in Mathematics and Applications, Moscow, Russia, June 22-25, 2011. Plenary talk (1 hour) and invited talk (30 minutes).

The 7th International Congress on Industrial and Applied Mathematics (ICIAM'2011), Vancouver, British Columbia, Canada, July 18-22, 2011. Invited talk at a mini-symposium (30 minutes).

2012

SIAM International Conference on Linear Algebra, Valencia, Spain, June 18-22, 2012. Invited talk at a mini-symposium (30 minutes).

14th Annual Conference on Computer Algebra in Scientific Computing (CASC'2012), September 3-6, 2012, Maribor, Slovenia. Two refereed papers were accepted by the Program Committee.

2nd International Conference on Structured Numerical Linear Algebra Problems: Algorithms and Applications (Leuven 2012), September 10-14, 2012, Leuven, Belgium. Invited talk (30 minutes).

2013

The 17-th ILAS Conference, Providence, R.I., June 3-7, 2013. Four invited talks at three mini-symposia, 30 minutes each.

Annual ACM SIGSAM International Symposium on Symbolic and Algebraic Computation (ISAAC'2013), Boston, Massachusetts, June 23-26, 2013. Refereed paper was accepted by the Program Committee.

15th Annual Conference on Computer Algebra in Scientific Computing (CASC'2013), September 9-13, 2013, Berlin, Germany. A refereed paper was accepted by the Program Committee.

2014

The Ninth International Computer Science Symposium in Russia (CSR'2014), June 2014, Moscow, Russia. Refereed paper was accepted by the Program Committee.

The 5th International Workshop on Symbolic-Numeric Computation (SNC'2014), July 2014, Shanghai, China. Two refereed paper were accepted by the Program Committee.

3rd International Conference on Structured Numerical Linear Algebra Problems: Algorithms and Applications, September 8-12, 2012, Kalamata, Greece. Invited talk (30 minutes).

(Rev. 3/22/14)