# PUBLICATIONS BY SUBJECTS 

Victor Pan

## 1 POLYNOMIALS: EVALUATION, INTERPOLATION, MULTIPLICATION, DIVISION, GCDs

## BOOKS

1. "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).
2. "Structured Matrices and Polynomials: Unified Superfast Algorithms" (XXV +278 pages), Birkhäuser/Springer

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2. "Complexity of Computations with Matrices and Polynomials," SIAM Review, 34, 2, 225-262 (1992).
3. "Algebraic Algorithms" (by A. Diaz, E. Kaltofen and V. Y. Pan), 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.
4. "Some Recent Algebraic/Numerical Algorithms", Electronic Procs. IMACS/ACA'98 (1998). Available at http:www-troja.fjfi.cvut.cz/aca98/sessions/approximate
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6. . "Fast Fourier Transform and Its Applications" (by I. Z. Emiris and V. Y. Pan), 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).
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8. "Fast Fourier Transform and Its Applications" (by I. Z. Emiris and V. Y. Pan), in "Algorithms and Theory of Computations Handbook", Second Edition, Volume 1 (1016 pages): General Concepts and Techniques, pages 1-31 in Chapter 18 (Mikhail J. Atallah and Marina Blanton, editors), CRC Press Inc., Boca Raton, Florida (2009).
9. "Algebraic Algorithms" (by I. Z. Emiris, V. Y. Pan, and E. Tsigaridas), Chapter 10 (pages from $10-1$ to $10-40$ ) 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, 2014. Available at arXiv 1311.3731 [cs.DS]

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

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10. "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).
11. "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).
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31. "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).
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37. "How Bad Are Vandermonde Matrices?", SIAM Journal of Matrix Analysis and Applications, 37, 2, 676-694 (2016).
38. "Fast approximate computations with Cauchy matrices and polynomials", Math. of Computation, 86, 2799-2826, 2017. DOI: https://doi.org/10.1090/mcom/3204

## 2 UNIVARIATE POLYNOMIAL ROOT-FINDING AND FACTORIZATION

## A BOOK

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

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5. "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), Birkhaüser, Basel/Boston (2007).
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9. "Deterministic Improvement of Complex Polynomial Factorization Based on the Properties of the Associated Resultant", Computers and Math. (with Applications), 30, 2, 71-94 (1995).
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## 3 MULTIRIATE POLYNOMIAL ROOT-FINDING

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

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3. "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).
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## 12 GRAPH ALGORITHMS

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