WILLIAM YSLAS VÉLEZ

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EDUCATION

Undergraduate work and graduate work at the University of Arizona.

Degrees:
1968 B.Sc. in Mathematics
1972 M.Sc. in Mathematics
1975 Ph.D. in Mathematics
Thesis Advisor: Henry B. Mann Thesis Title: A basis for the group of units modulo P^m and prime ideal factorization in $F(a^{1/m})$.

MAJOR AREAS OF STUDY

Algebraic Number Theory, Elementary Number Theory, Group Theory, Field Theory, Algebraic Coding Theory, Communication Theory, Signal Processing.

PROFESSIONAL EXPERIENCE

July 1989 - Present: Professor, Department of Mathematics, The University of Arizona, Tucson, AZ.
August 2003-Present: Associate Head for Undergraduate Programs, Mathematics Department.
April 1998 - Present: University of Arizona Distinguished Professor.
January-June 2011: Martin Luther King Visiting Professor, Massachusetts Institute of Technology, Cambridge, MA.
(Appointment canceled due to illness in family)
September-December 2010, Research Affiliate, Massachusetts Institute of Technology, Cambridge, MA.
1994 - 1999: Director, Southwest Regional Institute in the Mathematical Sciences.
1994 - 1996: President, Society for the Advancement of Chicanos and Native Americans in Science.
Summer 1994: Member of the teaching faculty in the two programs, Making Everybody Count
(June, Tucson, AZ) and the Summer Mathematics Institute (June & July, Berkeley, CA)
August 1992 - August 1993: Program Director, Algebra and Number Theory Program, National Science Foundation, Washington, D.C.

Summer of 1992: Consultant, Naval Command, Control and Ocean Surveillance Center, San Diego, CA.
Summers of 1989, 1990, 1991: Consultant, Naval Ocean Systems Center, San Diego, CA.
July 1981 - July 1989: Associate Professor, The University of Arizona, Tucson, AZ.
September 1983 - January 1984: Visiting Professor, Mathematics Institute, University of Heidelberg, Heidelberg, West Germany.
July 1977 - June 1981: Assistant Professor, Department of Mathematics, The University of
Arizona, Tucson, AZ.
September 1975 - June 1977: Member of Technical Staff, Sandia Laboratories, Albuquerque, NM.
Summer of 1974: Member of Technical Staff, Mathematics Research Group,
Bell Telephone Laboratories, Murray Hill, NJ.
Summers of 1971, 1972, 1973: Member of the teaching staff of the NSF summer institute for
high school teachers at The University of Arizona, Tucson, AZ.
September 1970 - August 1975: Graduate Student and Teaching Assistant, Department of Mathematics, The University of Arizona, Tucson, AZ.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Mathematical Association of America
Society for the Advancement of Chicanos and Native Americans in Science
American Association for the Advancement of Science
American Mathematical Society

GRANTS

1. National Chicano Council on Higher Education Summer Research Grant, Summer 1980.
   Faculty Internship Grant funded by the Southwest Resource Center for Science and Engineering
   at the University of New Mexico, Albuquerque, NM, Summer 1981.
2. National Science Foundation Grant, Studies in Radical Extensions and Number Theory,
   PRM-8213782, 1982-1984, $26,359.
3. College of Arts and Sciences Minority Retention Grant for Calculus, 1988-1989, $12,000;
   1989-1990, $6,788; 1990-1991, $12,000; and 1991-1992, $12,000.
4. National Science Foundation Grant to The Southwest Regional Institute in the Mathematical Sciences
   (SWRIMS) at The University of Arizona, DMS-9412873, 1994-1998, $1,372,020.
5. National Security Agency, Research Experiences for Undergraduates, MDA 9049511079,
   1995-1996, $22,415.

6. Alfred P. Sloan Foundation Grant to The Society for Advancement of Chicanos and Native Americans
   (SACNAS, W. Y. Vélez, President), #96-6-23, 1996-1998, $75,555.
7. National Science Foundation Grant to The Society for Advancement of Chicanos and Native Americans
   in Science (SACNAS, W. Y. Vélez, President), DMS-9632772, 1996-1999, $92,952.
8. National Institutes of Health to The Society for the Advancement of Chicanos and Native Americans
   in Science (SACNAS, W. Y. Vélez, President), 1 T36 GM 08635-01, 1996-99, $485,505.
9. President's Award for Excellence in Science, Mathematics and Engineering Mentoring Program,
   Washington, D.C., HRD9724886, September 1997, $10,000.
10. National Science Foundation grant for Computer Science, Engineering and Mathematics Scholarships,
    DUE 9986899, July 1, 2000 - June 30, 2004, $499 ,500. The Co-PIs on this grant are
    Maria Teresa Vélez, Rick Mercer, Richard Shoemaker, Ray Umashankar, William Yslas Vélez.
11. Co-PI on National Institutes of Health, Minority Access to Research Careers, May 1999-May 2007. The Co-PIs on this grant are
    March Tischler, Maria Teresa Vélez and William Yslas Vélez. NIH T34 GM 08718, $1,456,107.
12. Co-PI on National Science Foundation grant for GK-12 Teaching Fellows: Collaboration for the
    Advancement of Teaching Technology and Science in Schools. The Co-PIs on this grant are Michelle Hall Wallace,
    James A. Knight, Supapan Seraphin, Michael Wells and William Yslas Vélez, $540,046.
13. National Science Foundation grant for Computer Science, Engineering and Mathematics Scholarships,
    DUE 9986899, July 1, 2003 - June 30, 2007, $400,000. The Co-PIs on this grant are
    Maria Teresa Vélez, Rick Mercer, Richard Shoemaker, Ray Umashankar, William Yslas Vélez.
14. MAA grant for the organization of the second annual Arizona Mathematics Undergraduate Conference, September 2004-August 2005, $3,000.
15. National Security Agency grant for the organization of the second annual Arizona Mathematics Undergraduate Conference, September 2004-August 2005, $4,000.
16. National Science Foundation grant for Undergraduate Scholarships in Integrated Science, DUE-0631193, November 1, 2006-October 31, 2010. The Co-PIs on this grant are Gail D. Burd, Kathleen Dixon, Koen Visscher, Randall M. Richardson, William Y. Velez. $500.000.
17. National Science Foundation grant for the Vertical Integration of Graduate Education, DMS- DMS-0602173, November1, 2006-October 31, 2010. The Co-

PIs on this grant are Doug Ulmer, Nicholas Ercolani, William McCallum, Michael Tabor, William Yslas Velez, $3,500,000.

18. TENSOR-SUMMA MAA grant: Strengthening Underrepresented Minority Mathematics Achievement in Undergraduate Mathematics. The PIs on this grant are David Savitt and William Yslas Velez, 2007, $6150.
19. TENSOR-SUMMA MAA grant: Strengthening Underrepresented Minority Mathematics Achievement in Undergraduate Mathematics. The PIs on this grant are David Savitt and William Yslas Velez, 2008, $5180.
20. TENSOR-SUMMA MAA grant: Strengthening Underrepresented Minority Mathematics Achievement in Undergraduate Mathematics. The PI on this grant is William Yslas Velez, 2010, $4400.

HONORS and AWARDS

1. Ford Foundation Fellowship for Mexican-Americans, Academic Year, 1974-75.
2. King/Chavez/Parks Visiting Scholar, University of Michigan, Ann Arbor, January 1988.
3. American Society for Engineering Education Summer Fellowship, 1989, 1990, 1991, and 1992.
4. Excellence in Teaching Award, 1989.
5. College of Science Outstanding Advisor Award, 1989.
6. College of Engineering Outstanding Student Advisor Award, 1990.
7. Outstanding Faculty Member involved in minority retention, awarded by the Assistant Vice President for
   Minority Student Affairs, 1991.
8. Outstanding Student Club Advisor, 1992.
9. General Workforce System Outstanding Performance Award, National Science Foundation, July 1993.
10. National Science Foundation Director's Equal Opportunity Achievement Award, July 1993.
11. Department of Mathematics, University of Arizona, Outstanding Advisor Award, 1994.
12. College of Science Outstanding Advisor Award, 1996.
13. President's Award for Excellence in Science, Mathematics and Engineering Mentoring Program,
    Washington, D.C., September 1997.
14. University of Arizona Alumni Association Centennial Achievement Award, April 1998.
15. QEM/MSE Network, Giant in Science Award, February 2005.
16. Salpointe Catholic High School Distinguished Alumni Hall of Fame Award, April 2005.
17. Mathematical Association of America, Certificate of Meritorious Service, January 2006.
18. The University of Arizona Excellence in Academic Advising, Faculty Advisor Award, April 2006.

19. The WISE Leadership Council 2007 Faculty award for diversity in science and engineering, 2007.
20. University of Arizona Hispanic Alumni and the College of Science Distinguished Alumni Award of Excellence, 2007.
21. Fellow, American Association for the Advancement of Science, January, 2009.
22. Peter W. Likins Inclusive Excellence Award, University of Arizona, October 2009.
23. The Victoria Foundation, Dr. Alfredo G. de los Santos, Jr., Outstanding Latino Faculty: Service/Teaching in Higher Education Award, September 2010.

PERSONAL BACKGROUND

I was born and raised in Tucson, Arizona. I am married to Bernice Lopez de Vélez, also of Tucson.
We have two children, Ana Christina and Andres Antonio.
I have served in the U.S. Naval Reserves, January 1965-January 1974. I was on active duty from
March 1968-September 1969; I served aboard the aircraft carriers U.S.S. Yorktown and the
U.S.S. Kearsarge as a weather observer.

ADMINISTRATIVE EXPERIENCE

During my tenure at The University of Arizona, I have served on the following departmental Committees: Personnel Committee (2 years), Undergraduate Committee (2 years), Graduate Committee (6 years), Promotion and Tenure Committee (2 years). I have served on the College of Science Promotion and Tenure Committee (three years). I am currently the Associate Head for Undergraduate Affairs.

Member of the Board, Society for the Advancement of Chicanos and Native Americans in Science,1990-1993, 1994-1997.
President, Society for the Advancement of Chicanos and Native Americans in Science, 1994-1996.
Member of the Program Committee for the January 1991 meeting of the Mathematical Association of
America in San Francisco.
Member of the organizing committee for the first joint meeting of the American Mathematical Society
and the Sociedad Matematica Mexicana, Merida, Yucatan, December 1994.
Member, Committee on Committees, American Mathematical Society, 1990-1992 and 1993-1995.
Member, Newsletter Editorial Subcommittee, Mathematical Association of America, 1992-1995.
Member, Committee on Meetings and Conferences, American Mathematical Society, 1993-1995.
Member, Committee on the Human Rights of Mathematicians, 1994-1997.
Council Delegate, Section on Mathematics to the American Association for the

Advancement
of Science, 1998-2001.
Member, MAA Committee on Minority Participation in Mathematics, 1999-2002.
Governor-at-Large for Minority Interests, Board of Governors of the Mathematical Association
of America, 1999-2002.
Member, MAA Gung-Hu Award Selection committee, February 2000-January 2003.
Member, AMS Committee on Academic Freedom, Tenure, and Employment Security, February 2000-January 2003.
Member, MAA Membership Committee, January 2000-January 2003.
Member, Organizing Committee, MAA Annual Meeting, San Diego, CA, 2001.
Member, AMS Committee to Select the Winner of the Award for Public Service, 2001-2006.
Member, MAA Coordinating Council on Awards, 2001-2004.
Member, MAA Development Committee, 2004-2007.
Member, MAA Subcommittee on Early Career Mathematicians, 2005-2011.
Member, MAA Committee on the James R. C. Leitzel Lecture, 2008-2011.
Member, College Board-MAA Committee on Mutual Concerns, 2010-2013.

I have also served as Chairman of the following committees:

Chairman, University Committee on Financial Aid, 1981-1982.
Chairman, Colloquium Committee, 1982-1983.
Chairman, Graduate Committee, 1985-1987.
Chairman, Southwestern Section of the Mathematical Association of America, 1981-1982, 1984-1985, 2005-2006.

ADVISORY COMMITTEES

Member, Equity 2000 National Advisory Commission of The College Board, 1993-2000.
Member, Educational and Human Resources Advisory Committee of the Mathematical Sciences Research Institute, Berkeley, 1993-2001.
Member, National Science Foundation's Committee on Equal Opportunity in Science and Engineering, 1994-1997.
Member, National Advisory Board, El Paso Partnership for Excellence in Teaching Education, 1995-2000.
Member, National Advisory Board, Interactive Mathematics Program, Rocky Mountain Region, 1995-2000.
Member, National Model Institutions for Excellence Leadership Council, 1996-1998.
Member, Steering Committee, DIMACS Research and Education Institute, Rutgers University, 1997-1999.
Member, National Advisory Committee, Project NEXT, 1997-2000.
Member, National Advisory Committee, National Institute for Science Education, 1998-2000.
Council Delegate of the Electorate of the Section in Mathematics (A) to AAAS, February 1998-February 2001.

Chair, Educational and Human Resources Advisory Committee of the Mathematical Sciences
Research Institute, Berkeley, 1999-2001.
Member, Steering Committee of the Mathematical Sciences Research Institute, Berkeley, 1999-2001.
Member, American Association for the Advancement of Science, Committee on Opportunities in Science, 1999-2002.
Member, President's Diversity Advisory Committee, ECMC Corporation, 2000-2006.
Member, Steering Committee for Review of the Evaluation Data on the Effectiveness of NSF Supported Mathematics Curriculum Materials, National Research Council, 2002-2004.
Member, Board of Visitors, Division of Mathematics, Science and Technology, Pima Community College, Tucson. 2004-2007.
Member, Committee of Visitors, Rice University Summer program in Statistics, 2004-2008.
Member, National Advisory Committee, MSPinNYC, Hunter College, NY, NY, 2005-2008.
Member, National Advisory Committee, UA Undergraduate Biology Research Program, 2006-2009.
Member, National Advisory Committee, Access Algebra Project, Oregon Museum of Science and Industry, Portland, OR, 2007-2010.
Member, National Advisory Committee, Gate Foundation Developmental Math Project, 2009-present
Member, National Advisory Committee, West Texas Middle School Math Partnership (WTMSMP), Texas State University, Lubbock, TX, 2009-present.
Member, National Advisory Committee, Math Pathways and Pitfall, West ED, Oakland, CA, 2009-present.

INVITED ADDRESSES

Four one-hour talks dealing with Number Theory and Algebraic Coding Theory on the occasion
of the 45th Anniversary of the Founding of the Universidad Autonoma de Guadalajara, Guadalajara, Jalisco, Mexico, June 1980.
Seven one-hour talks dealing with number theory, Sichuan University, Chengdu, Sichuan,
Peoples Republic of China, March 1988.
Four one-hour talks dealing with valuation theory and algebraic number theory, Universidad de Sonora,
Hermosillo, Sonora, Mexico, April 1989.
James Letizel Lecturer, MAA Summer Math Fast, August 2005.
MAA Sectional Meeting, Poukeepsie, NY, October 2006.
West Virginia Higher Education Mathematics Symposium, April 2008.
Third Annual Math Literacy Summit, University of North Carolina, Asheville, October 2009.
Summit on Latino Student Success, San Antonio, Texas, May 2010.

Field of Dreams Conference, University of Iowa, October 2010.
HSI Math Integration Workshop, Baltimore, MD, 2010.
Center for Undergraduate Research in Mathematics Conference, BYU, Provo, Utah, March 2011.

CONSULTING

Bell Laboratories, August 1983. Presentation on the status and issues of Mexican-Americans
entering the scientific fields.
Naval Ocean Systems Center, Summers, 1989, 1990 and 1991. Signal Processing for submarine communication systems.
Naval Command, Control and Ocean Surveillance Center, Summer 1992. Signal Processing for
submarine communication systems.

DOCTORAL DISSERTATIONS SUPERVISED

1) Maria Teodora Acosta de Orozco, Fields defined by radicals; their torsion group and their lattice of subfields, 1987.
2) Fernando Barrera Mora, On radical extensions and radical towers, 1989.
3) June Bok Lee, Integral solutions in arithmetic progression for $y^2 = x^3 + k$, 1991.

COLLOQUIA PRESENTED

Sandia Laboratories, Albuquerque, NM, May 1974.
University of Arizona, Tucson, AZ, March 1975 and October 1976.
Sandia Laboratories, Albuquerque, NM, May 1975.
University of New Mexico, Albuquerque, NM, October 1975, September 1976 and November 1994.
University of Texas at El Paso, April 1977, August 1984, November 1994, April 2001, March 2003, and February 2005.
Colorado State University, Fort Collins, CO, February 1978.
University of Colorado, Boulder, CO, February 1978.
Pennsylvania State University, State College, Pennsylvania, December 1979.
University of Heidelberg, Heidelberg, West Germany, September 1983.
University of Tubingen, Tubingen, West Germany, November 1983.
Virginia Polytechnic Institute and State University, Blacksburg, Virginia, April 1984.
Simon Fraser University, Vancouver, BC, Canada, July 1985 and January 1991.
Universidad de Sinaloa, Culiacan, Mexico, December 1985.
Instituto Politecnico Nacional, Mexico City, December 1985, November 1987 and February 1992.
Universidad Nacional Autónoma de Mexico, Mexico City, December 1985, November 1987 and February 1992.
Universidad de Puebla, Puebla, Mexico, December 1985.
Instituto Technologico de Durango, Durango, Mexico, August 1986.

University of Nevada, Las Vegas, NV, November 1986.
Universidad de Sonora, Hermosillo, Sonora, Mexico, January 1987 and April 1989.
Universidad Autónoma Metropolitana, Iztapalapa, Mexico City, November 1987 and February 1992.
Instituto Technologico Autónoma de Mexico, Mexico City, November 1987.
University of Michigan, Ann Arbor, MI, January 1988 and January 2003.
Michigan State University, East Lansing, MI, January 1988.
Arizona State University, Tempe, AZ, February 1988, October 1994 and February 2009.
Mathematics Institute, Chinese Academy of Sciences, Beijing, P.R.C., March 1988.
Sichuan University, Chengdeu Sichuan, P.R.C., March 1988.
Fudan University, Shanghai, P.R.C., March 1988.
Naval Ocean Systems Center, August 1989 and July 1990.
University of Texas, Pan American, Edinburg, TX, February 1990 and January 2005.
Texas A & I University, Kingsville, TX, February 1990.
Universidad de las Americas, Puebla, January 1991.
Universidad Michoacana de San Nicolas de Hidalgo, Morelia, Michoacan, January 1991.
San Diego State University, San Diego, CA, March 1991, May 1991, March 1998.
National Science Foundation, Washington, D.C., February, 1993.
University of Maryland, College Park, MD, March 1993.
George Mason University, Fairfax, VA, April 1993.
New Mexico Highlands University, Las Vegas, NM, September 1993.
California State University, Sacramento, CA, March 1994.
DQ University, Sacramento, CA, 1994.
New Mexico State University, Las Cruces, NM, April, 1994, October 1994, and April 2005.
Northern Arizona University, October 1994 and April 2008.
Utah State University, November 1994.
St. Louis University, St. Louis, MO, December 1994.
Universidad Autónoma de Baja California, Ensenada, Baja California, Mexico, March 1995.
San Jose State University, December 1996.
San Francisco State University, November 2000.
Tulane University, November 2001.
Universidad Autonoma de San Luis Potosi, January 2002.
Universidad de Occidente, Culiacan, Sinaloa, March 2002.
Iowa State University, Ames. Iowa. April 2002, April 2009 and October 2010.
University of Illinois, Chicago, January 2003
University of Texas, San Antonio, January 2005
Texas State University, San Marcos, January 2005
Texas A&M, Corpus Christi, January 2005
University of Texas, Brownsville, January 2005
Morehead State University, Morehead, KY, November 2005
University of San Diego, March 2006
Occidental College, March 2006
California State University, Northridge, March 2006
Harvey Mudd College, April 2006

University of Iowa, May 2006 and April 2009
Louisiana State University, May 2007
Hunter College, Manhattan, NY February 2008
Columbia's Teacher College, Manhattan, NY February 2008
Virginia Tech, Blacksburg, Virginia, March 2008
George Washington University, Washington, DC, March 2008
Fairmont State University, Fairmont, West Virginia, April 2008
Illinois Institute of Technology, Chicago, Illinois, April 2008
Clemson University, Clemson, SC, May 2008
Oregon State University, Corvalis, OR, January 2009
University of North Carolina, Asheville, October 2009
University of Oklahoma, Norman, OK, December 2009
Massachusetts Institute of Technology, Boston, MA, April 2010
University of California, Irvine, CA, October 2010
University of Charleston, Charleston, SC, April 2011

MATHEMATICAL PUBLICATIONS

1) On Normal Radical Extensions of the Rationals, H. B. Mann and W. Y. Vélez, *Linear and Multilinear Algebra*, 1975, Vol. **3**, pp. 73-80.
2) Prime Ideal Decomposition in $F(\mu^{1/m})$, H. B. Mann and W. Y. Vélez, *Linear and Multilinear Algebra*, 1975, Vol. **3**, pp. 73-80.
3) A Characterization of Completely Regular Fields, W. Y. Vélez, *Monatshefte für Mathematiks* **81**, 1976, pp. 131-139.
4) Some Remarks on a Number Theoretic Problem of Graham, W. Y. Vélez, *Acta Arithmetica*, XXXII, 1977, pp. 233-238.
5) Prime Ideal Decomposition in $F(\mu^{1/m})$, II, W. Y. Vélez, *Number Theory and Algebra*, edited by H. Zassenhaus, Academic Press, New York 1977, pp. 331-338.
6) Partially Normal Radical Extensions of the Rationals, D. Gay, A. McDaniel, W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **72**, No. 2, 1977, pp. 403-417.
7) Prime Ideal Decomposition in $F(\mu^{1/p})$, W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **75**, No. 2, 1978, pp. 589-600.
8) Permutations of the Positive Integers with Restrictions on the Sequences of Differences, P. J. Slater and W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **71**, No. 1, 1977, pp. 193-196.
9) A Characterization of the Splitting of Algebraic, Inseparable Extensions, M. J. Norris and W. Y. Vélez, *American Mathematical Monthly*, Vol. **85**, No. 5, pp. 338-341.
10) Structure Theorems for Radical Extensions of Fields, M. J. Norris and W. Y. Vélez, *Acta Arithmetica* **38**, 1980, pp. 111-115.
11) Correction to: Structure Theorems for Radical Extensions of Fields, *Acta Arithmetica* **42**, 1983, pp. 427-428.
12) On Normal Binomials, W. Y. Vélez, *Acta Arithmetica* **36**, (1980), pp. 113-124.
13) On the Degree of the Splitting Field of an Irreducible Binomial, D. Gay and W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **78**, No. 1, 1978, pp. 117-120.

14) Permutations of the Positive Integers with Restrictions on the Sequence of Differences, II, Peter J. Slater and W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **82**, No. 2, 1979, pp. 527-531.
15) A Note on the Normality of Unramified, Abelian Extensions of Quadratic Extensions, Daniel J. Madden and W. Y. Vélez, *Manuscripta Matematica* **30**, 1980, pp. 343-349.
16) Polynomials that Represent Quadratic Residues at Primitive Roots, Daniel J. Madden and W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **98**, No. 1, 1982, pp. 123-137.
17) The Torsion Group of a Radical Extension, David Gay and W. Y. Vélez, *Pacific Journal of Mathematics*, Vol. **92**, No. 2, 1981, pp. 317-327.
18) The Lattice of Subfields of a Radical Extension, María Acosta de Orozco and W. Y. Vélez, *Journal of Number Theory*, Vol. **15**, No. 3, 1982, pp. 388-405.
19) Equiprobability in the Fibonacci Sequence, Lee Erlebach and W. Y. Vélez, *Fibonacci Quarterly*, Vol. **21**, No. 3, 1983, pp. 189-191.
20) The Notion of Neatness in Torsion Abelian Groups of Finite Rank, W. Y. Vélez, *Commentarii Mathematici Universitatis Sancti Pauli*, Vol. **33**, No. 1, 1984, pp. 99-102.
21) The Torsion Group of a Field Defined by Radicals, Acosta de Orozco and W. Y. Vélez, *Journal of Number Theory*, Vol. **19**, No. 2, 1984, pp. 283-294.
22) On the Adele Rings of Radical Extensions of the Rationals, Eliot Jacobson and W. Y. Vélez, *Archiv der Mathematik*, Vol. **45**, 1985, pp. 12-20.
23) The Factorization of p in Q( ) and the Genus Field of $Q(a^{1/n})$, W. Y Vélez, *Tokyo Journal of Mathematics* **11**, No. 1, 1988, pp. 1-19.
24) Several Results on Radical Extensions of Fields, W. Y. Vélez, *Archiv der Mathematik*, Vol. **45**, 1985, pp. 342-349.
25) A generalization of Schinzel's theorem on radical extension of fields and an application, W. Y. Vélez, *Acta Arithmetica*, 1988, pp. 119-130.
26) Uniform distribution of two-term recurrence sequences, W. Y. Vélez, *Transactions of the American Mathematical Society* **301**, No. 1, 1987, pp. 37-45.
27) On a property of cosets in a finite group, W. Y. Vélez, *Journal of Algebra* **115**, No. 2, 1988, pp. 412-413.
28) Uniform and *f*-uniform distribution of recurrence sequences over Dedekind Domains, E. Jacobson and W. Y. Vélez, *Journal of Sichuan University* **26**, 1990, pp. 98-103.
29) Fields arithmetically equivalent to a radical extension of the rationals, E. Jacobson and W. Y. Vélez, *Journal of Number Theory*, Vol. **35**, No. 31, pp. 227-246.
30) The Galois group of a radical extension of the rationals, E. Jacobson and W. Y. Vélez, *Manuscripta Matematica* **67**, 1990, pp. 271-284.
31) Integral solutions in arithmetic progression for $y^2 = x^3 + k$, J. B. Lee and W. Y. Vélez, *Periodica Mathematica Hungarica*, Vol. **25** (1), 1992, pp. 31-49.
32) Breve introduccion a códigos dectores-correctores de error, C. Renterria, H. Tapia, W. Y. Vélez, Aportaciones Matemáticas, Comunicacion #7, Sociedad Matematica Mexicana, Junio 1990, pp. 1-36.
33) Arithmetically Equivalent Fields, W. Y. Vélez, *Aportaciones Matemáticas, Notas de Investigacíon*, **6**, 1992, pp. 77-87.
34) Some results on radical extensions, F. Barrera Mora and W. Y. Vélez, *Journal of Algebra*, Vol. **162**, No. 2, 1993, pp. 295-301.

OTHER MATHEMATICAL PUBLICATIONS AND PATENTS

1. Chicano Scientist Employment in Arizona and New Mexico, W. Y. Vélez, *Proceedings of the Fourth Annual Conference on Special Emerging Programs in Higher Education for Minorities*, Tucson, AZ, 1976.
2. Underrepresentation in the Science: Chicanos and Native Americans, Celestino Fernandez and W. Y. Vélez, *Proceedings of the Conference on the Status and Issues of Chicano Native American Participation in the Sciences*, Boulder, CO, 1978.
3. Method and Apparatus For Suppressing Interference From Bandspread Comunication Signals, J. W. Bond, T. Schlosser, W. Y. Vélez, (1991), Patent #5, 495, 497, Patent Date: 27 Feb., 1996.
4. Method and Apparatus For Suppressing Linear Amplitude Interference From Bandspread Communication Signals, J. W. Bond, W. Y. Vélez, Patent #5, 495, 496, Patent date: 27 Feb., 1996.
5. A characterization of the outputs of adaptive locally optimum detection algorithms, J. W. Bond and W. Y. Vélez, Naval Ocean Systems Center Technical Report, 1990.
6. Some Thoughts on the Funding of Mathematics, Notices of the American Math. Soc., Vol. **41**, No. 2, 1994, pp. 101-103.
7. Advising as an Aggressive Activity, FOCUS, *The Newsletter of the Mathematical Association of America*, Vol. **14** (4), August 1994, pp. 10-12.
8. NSA Policy on Contact with Foreign Nationals, Letters to the Editor, Notices of the American math. Soc, Vol. 42 (2), February 1995, pg. 219.
9. Some Thoughts on the Teaching of Algebra, *The Algebra Initiative Colloquium*, Volumes I & II, U.S. Department of Education, Office of Educational Research and Improvement, edited by Carole B. Lacampagne, William Blair, Jim Kaput, May 1995, pp, 223-229.
10. The Integration of Research and Education, *Notices of the American Mathematical Society*, Vol. **43**(10), October 1996, pp. 1142-1146.
11. The Equity 2000 Program of the College Board Increasing the Mathematical Skills of the Pre-College Student, *Notices of the American Mathematical Society*, Vol. **43**(12), December 1996, pp. 1522-1523.
12. Names on a Wall -- A Perspective on Why Diversity Matters, American Scientist, Vol. **85**(2), March-April 1997, p. 200.
13. The Exponential Function and the Dynamics of Population, Part 1, W.Y. Vélez and Catherine M. Yslas, *The California Mathematics Council Communicator*, Vol. **23**, No.2, 1998, pp.38-39.
14. The Exponential Function and the Dynamics of Population, Part 2, W.Y. Vélez and Catherine M. Yslas, *The California Mathematics Council Communicator*, Vol. **23**, No.4, 1999, pp.36-38.
15. The Research Mathematician as Story Teller, J. Watkins and W.Y. Vélez, *Contemporary Issues in Mathematics Education, Mathematical Sciences Research Institute Publications*, No.36, Editors: Estela A. Gavosto, Steven G. Krantz, and William McCallum, Cambridge University Press, 1999, pp. 45-56.
16. University Faculty: Priming the Pump or Laying in Ambush? W.Y. Vélez, *Access Denied: Race, Ethnicity and the Scientific Enterprise*, edited by George Campbell Jr., Ronni Denes and Catherine Morrison, Oxford University Press, 1999.

17. Building Capacity, Developing and Implementing a National HRD Cadre of Presidential Awardees in Science, Mathematics and Engineering Mentoring, Plenary Session #7, W.Y. Vélez, *The U.S. Science, Engineering and Technology Workforce of the Future, Proceedings of a workshop of the Executive Office of the President, National Science and Technology Council, Committee in Science, Interagency Working Group on the U.S. Science and Technology Workforce of the Future*, July 29-30, 1998, pp. 123-124.
18. Minority Data, W.Y. Vélez, *Letters to the Editor Section of Science* (285), 27 Aug 1999. Reprinted in Making Strides, *Directorate for Education and Human Resources Programs*, AAAS, (1), No.3, October 1999, p. 16.
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