

Publication List: Frank Wattenberg

- 1969 *Nonstandard Measure Theory* in Applications of Model Theory to Algebra, Analysis and Probability, Holt, Rinehart and Winston, Inc., edited by W.A.J. Luxemburg, 171-185 (with A. Bernstein).
- 1971 *Nonstandard Topology and Extensions of Monad Systems to Infinite Points*, *Journal of Symbolic Logic*, 36, #3, 463-476.
- 1972 *Differentiable Motions of Unknotted, Unlinked Circles in 3-Space*, *Mathematica Scandinavica*, 30, 107-135.
- 1973 *Monads of Infinite Points and Finite Product Spaces*, *Transactions of the American Mathematical Society*, 176, February 1973, 351-368.
- 1973 *Two Topologies with the Same Monads*, *Proceedings of Symposium on Nonstandard Analysis*, Victoria, B.C., Springer-Verlag Lecture Notes in Mathematics, 369, 50-59.
- 1973 *Cardinality Dependent Properties of Topological Spaces*, *Proceedings of Symposium on Nonstandard Analysis*, Victoria, B.C. 303-312 (with A. Bernstein).
- 1977 *Nonstandard Measure Theory - Hausdorff Measure*, *Proceedings of the American Mathematical Society*, 65, 326-331.
- 1977 *Topologies on the Set of Closed Subsets*, *Pacific Journal of Mathematics*, 668, 537-551.
- 1978 *Nonstandard Measure Theory: Avoiding Pathological Sets*, *Transactions of the American Mathematical Society*, 250, 357-368.
- 1980 *$\{0, \infty\}$ -Valued, Translation Invariant Measures on N and the Dedekind Completion of *R* , *Pacific Journal of Mathematics*, 90, 223-247.
- 1981 *Egoroff's Theorem and the Distribution of Standard Points in a Nonstandard Model*, *Proceedings of the American Mathematical Society*, 81, 455-461.
- 1983 *Programming Projects for Your Timex/Sinclair 1000*, Prentice-Hall, Inc. Englewood Cliffs, NJ.
- 1983 *Uterricht im Infinitesimalalkal: Erfahrungen in den USA*, *Der Mathematik Unterricht* April 1983.
- 1984 *Interactive Experiments in Calculus*, (a diskette and manual of 20 interactive Apple II, //e experiments to be used by students taking Calculus), Prentice-Hall, Inc., Englewood Cliffs, NJ. (1984). (with Marty Wattenberg.)

- 1984 *Your Apple II Needs You*, Prentice-Hall, Inc. Englewood Cliffs, NJ (1984).
- 1986 *Applications of Nonstandard Analysis to Partial Differential Equations, I: The Diffusion Equation*, *Journal of Mathematical Modelling* 7, 503-523 (with Donald St. Mary, Feng Hanqiao).
- 1986 *Differences in Budgetary Stress Across Massachusetts Cities and Towns -- Interim Report of the Massachusetts Special Commission on Tax Reform* (with R. Tannenwald, M. Perrault).
- 1988 *Nonstandard Analysis and Constructivism?* *Studia Logica*, XLVII (1988), 303-309.
- 1988 *Linear Regression and Local Aid*, in Technical Report of the (Massachusetts) Special Commission on Local Aid, Jan. 1988, 170-184.
- 1990 *Personal Mathematics and Computing: Tools for the Liberal Arts*, MIT Press and McGraw-Hill, Inc., Cambridge, MA (1990).
- 1992 *Anamorphic Microscopes and Period Doubling*, *Analysis and Geometry: Trends in Research and Teaching*, Edited by B. Fuchssteiner and W.A.J. Luxemburg, Bibliographische Institut Mannheim-Zuerich, 57-68, May 1992. Publ. Wissenschaftsverlag Mannheim.
- 1992 *Calculus in a Real and Complex World*, (preliminary edition), PWS-Kent, Boston, (1992)
- 1995 *Calculus in a Real and Complex World*, (first edition), PWS-Kent, Boston.
- 1996 *The You-Based Laboratory: TI-CBL-based Explorations in Science and Mathematics for Junior and Senior High Schools*, (co-edited with Margo L. Mankus), True BASIC, Inc., West Lebanon, NH.
- 1995-present **The Connected Curriculum Project** (in progress)
<http://www.math.montana.edu/~frankw/ccp/home.htm>
 (the site below is an alternate site)
<http://umastr1.math.umass.edu/~frankw/ccp/home.htm>
- 1998 *A National Digital Library for Science, Mathematics, Engineering, and Technology Education*, D-Lib magazine at <http://www.dlib.org/dlib.html>
 This article is in the October 1998 issue at
<http://www.dlib.org/dlib/october98/10contents.html>
- 1999 *A National Digital Library for Science, Mathematics, Engineering, and Technology Education*, (with Norman L. Fortenberry) in the Proceedings of the Virtual Worlds and Simulation Conference (VWSIM '99) edited by Christopher Landauer and Kirstie L. Bellman, Simulation Series, Volume 31, Number 2, The Society for Computer Simulation.
- 1999 *Planning for a National Digital Library for Science, Mathematics, Engineering, and Technology Education*, (with Norman L. Fortenberry) in *Computers and Advanced Technology in Education*, edited by M.H. Hamza, ACTA Press,

<http://www.actapress.com/proceedings/1999proceedings/cate1999.htm>

- 1999 *Stretching the Zero Sum Paradigm with a National Digital Library for Science Education*, iMP Magazine, June 1999,
http://www.cisp.org/imp/june_99/06_99contents.htm
- 1999 *The Very Best Technology-Enhanced Education for All Students: A National Goal*, iMP Magazine, December 1999,
http://www.cisp.org/imp/december_99/12_99contents.htm
- 2000 *Technology-Enriched Learning of Mathematics: Opportunities and Challenges* (with Lee L. Zia) p. 67-81 Learning Mathematics for a New Century NCTM 2000 Yearbook. Edited by Maurice J. Burke and Frances R. Curcio.
- In prep *Multivariable Calculus, Linear Algebra, and Differential Equations in a Real and Complex World*. Web-based material accompanying the manuscript can be seen at
<http://www.math.montana.edu/~frankw/ccp/multiworld/topic.htm> or
<http://umastr1.math.umass.edu/~frankw/ccp/multiworld/topic.htm>
- In prep *Mathematical Modeling in a Real and Complex World*.
Web-based material accompanying the manuscript can be seen at
<http://www.math.montana.edu/~frankw/ccp/modeling/topic.htm> or
<http://umastr1.math.umass.edu/~frankw/ccp/modeling/topic.htm>