

# CURRICULUM VITAE

Arnold Lebow

## I. ADDRESS

Work: Yeshiva University, Department of Mathematics  
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## II. ACADEMIC POSITIONS

1968-  
present Yeshiva University, New York, N. Y.  
Professor of Mathematics (1972-present)  
Associate Professor (1968-1972)

1981-88 Rockefeller University, New York, N. Y.  
Adjunct Professor

1980 Rockland Research Institute, Orangeburg, N. Y.  
Consultant  
Research Scientist

1979 Columbia University, New York, N. Y.  
Visiting Scholar

1965-68 University of California, Irvine, California  
Assistant Professor of Mathematics

1962-65 New York University, New York, N. Y.  
Assistant Professor of Mathematics

1957-62 University of Michigan, Ann Arbor, Michigan  
Instructor (1962)  
Teaching Fellow (1957-62)

### **III. ADMINISTRATIVE EXPERIENCE**

Chairman, Department of Mathematics,  
Yeshiva University, 1981-84, and 1977-79.

Coordinator, Division of Natural Sciences,  
Yeshiva University, 1981-83.

Assistant Director, Institute for Retraining in  
Computer Science, Clarkson University, 1985-1989.

### **IV. PROFESSIONAL ACTIVITIES**

Member, American Mathematical Society, Mathematical Association of  
America, American Association for the Advancement of Science,  
American Association of University Professors, Association for Computing  
Machinery.

Referee, National Science Foundation, Proceedings of the American  
Mathematical Society, Michigan Journal of Mathematics, Indiana  
Journal of Mathematics, Pacific Journal of Mathematics, Journal of  
Functional Analysis, Mathematics Monthly, Mathematics Magazine.

Reviewer, Mathematical Reviews.

### **V. UNIVERSITY SERVICE**

Chairman, Faculty Handbook Committee, Yeshiva University, 1977-79.

Member, Middle States Self Study Committee on Structure and  
Governance of Divisions, Yeshiva -University, 1975.

Department Representative to the Education Development Center UMAP,  
Project, Yeshiva University.

Department Liaison to Mathematical Association of America.

### **VI. AWARDS**

National Science Foundation, eleven grants for research in functional  
analysis.

Mellon Foundation, two grants for curriculum development in

mathematics.

## VII. DOCTORAL STUDENTS

James Wohlever, Ph.D. 1974, Belfer Graduate School of Science, Yeshiva University. Thesis title, "Herglotz Operators on Hilbert space'.

Howard Kushner, Ph.D. 1981, Belfer Graduate School of Science, Yeshiva University. Thesis title, "Wishart Expectation Operators'..

## VIII. EDUCATION

University of Michigan (Ann Arbor, Michigan)  
Ph.D., Mathematics (1962)

Wayne State University, (Detroit, Michigan)  
M.A., Mathematics (1957)  
B.A., Mathematics (1956)  
B.S., Pharmacy (1955)

## Research Publications

1. Lebow, A., "On von Neumann's Theory of Spectral Sets", *Journal of Mathematical Analysis and Application*, Vol. 7, No. 1, pp. 64-90, 1963.
2. Lebow, A., "A note on Normal Dilations", *Proceedings of the American Mathematical Society*, Vol. 16, No. 5, pp. 995-998, 1965.
3. Lebow, A. and Coburn, L. A., "Algebraic Theory of Fredholm Operators", *Journal of Mathematics and Mechanics*, Vol. 15, No. 4, pp. 577-584, 1966.
4. Lebow, A. and Coburn, L. A., "Approximation by Fredholm Operators in the Metric Space of Closed Operators", *Rend. Sem.Math. Padova*, pp. 217-222, 1966.
5. Lebow, A. and Coburn, L. A., 'Components of Invertible Elements in Quotient Algebras of Operators", *Transactions of the American Mathematical Society*, Vol. 130, No. 2, pp. 359-366, 1968.
6. Lebow, A., "A Schroeder-Bernstein Theorem for Projections", *Proceedings of the American Mathematical Society*, Vol. 19, No. 1, pp. 144-145, 1968.

7. Lebow, A., "Maximal Ideals in Tensor Products of Banach Algebras", *Bulletin of the American Mathematical Society*, Vol. 74, No. 5, pp. 1020-1022, 1968.
8. Lebow, A., "A Power-Bounded Operator that is not Polynomially Bounded", *Michigan Mathematical Journal*, Vol. 15, pp. 397-399, 1968.
9. Lebow, A. and Finkelstein M., "On Nth Roots of Operators", *Proceedings of the American Mathematical Society*, Vol. 21, No. 1, p. 250, 1969.
10. Lebow. A. and Schechter, M., "Norms on Quotient Spaces", *Bulletin of the American Mathematical Society*, Vol. 75, pp. 1322-1325, 1969.
11. Lebow, A. and Schechter, M., "Semi-groups of Operators and Measures of Non-compactness", *Journal of Functional Analysis*, Vol. 7, pp. 1-26, 1971.
12. Lebow, A., "Spectral Radii of Absolutely Continuous Operators", *Proceedings of the American Mathematical Society*, Vol. 36, pp. 511-514, 1972.
13. Lebow, A., "Spatial Homomorphisms of Operator Algebras", *Indiana Mathematics Journal*, Vol. 24, pp. 865-873, 1975.
14. Berger, C. A., Coburn, L. A., and Lebow, A., 'C\*-Algebras Generated by Commuting Isometries", *Bulletin of the American Mathematical Society*, Vol. 81, pp. 747-749, 1975.
15. Berger, C. A., Coburn, L. A., and Lebow, A., "Representation and Index Theory for C\*-Algebras Generated by Commuting Isometries", *Journal of Functional Analysis*, Vol. 27, pp. 51-99, 1978.
16. Kushner, H., Lebow, A., and Meisner, M., "Eigenfunctions of the Wishart Expectation Operators", *Journal of Multivariate Analysis*, Vol. 11, No. 3, pp. 418-433, 1981.
17. Lebow, A., and Schreiber, M., "Polynomials over Groups and a Theorem of Fejer and Riesz", *Acta Scientiarum Mathematicarum*, Vol. 44, pp. 335-344, 1982.
18. Lebow, A., and Schreiber, M., "Scalar Actions", *Canadian Journal of Mathematics*, Vol. XXXV, pp. 750-768, 1983.
19. Lebow, A., and Schreiber, M., "On the Regular Representation of a Function Field", *Communications in Algebra*, Vol. 12, pp. 703-722, 1984.
20. Lebow, A., and Schreiber, M., "A Formula for the Separability Idempotent in

the Tensor Square of a Field", *Journal of Algebra*, Vol. 90, pp. 372-374, 1984.

### **Expository Publications and Presentations**

1. Lebow, A., "The Marriage Problem and its Algorithmic Solution", *Proceedings of NSF Conference on Enriching Discrete Mathematics*, University of Wyoming, Laramie, 1990.
2. Lebow, A., "ISETL as an All-Purpose Tool for Problem Solving", *NSF Workshop on Critical Thinking in Computer Science*, State University of New York at Stony Brook, 1991.
3. Lebow, A., "The Search for Transitivity and Other Programming Exercises", New York Metropolitan Section Meeting (MAA), May 1991.
4. Lebow, A., "Exercises for Discovering Slopes and Velocity", *Proceeding on Computer Algebra Systems in Mathematics Education*, Ithaca College, 1992.
5. Lebow, A. ISETL Probability Package (1994). A collection of ISETL programs that can be used to run simulations in a probability class. For example, there are simulations for tossing coins, dealing cards, rolling dice, etc. including a collection of assignments for students and some of the solutions. Available at the University of Tennessee mathematics archives: [http://archives.math.utk.edu/software/msdos/probability/prob\\_isetl/html](http://archives.math.utk.edu/software/msdos/probability/prob_isetl/html)
6. Burns, J., Chen, Y-Z., Lebow, A., Schmitt, F. G., "An improved model for the spread of epidemics", FAIM workshop on mathematical modeling, United States Military Academy, 1996.
7. Lebow, A. "A programming pearl" Joint Mathematics Meetings, Phoenix, AZ contributed paper to Special Session on mathematics related to computer science. January 2004.

### **Faculty Development Courses**

Institute for Retraining in Computer Science.

Total of 16 weeks in the summers of 1983 and 1984 at Clarkson University. Funded by the Sloan Foundation and sponsored by the Association for Computing Machinery and the Mathematical Association of America.

Enriching Discrete Mathematics.

Three weeks in the summer of 1990 at University of Wyoming.  
Funded by the National Science Foundation.

Calculus, Computers and Cooperative Learning.  
Two and a half weeks in the summer of 1991 at Purdue University.  
Funded by the National Science Foundation.

Workshop on Critical Thinking in Computer Science.  
Two weeks in summer of 1991 at the State University of New York  
at Stony Brook. Funded by the National Science Foundation.

Conference on Computers in Mathematic Education.  
Two weeks in summer of 1992 at Ithaca College. Funded by  
the National Science Foundation.

Mathematica Across the Curriculum.  
Two weeks in summer of 1993 at Vanderbilt University.  
Funded by Wolfram Associates, Inc.

Faculty Workshop in Abstract Algebra.  
Two weeks in the summer of 1995 at Purdue University.  
Funded by the National Science Foundation.

Principles and practice of mathematics.  
Two weeks in the summer of 1995 at United States Military  
Academy. Funded by COMAP and Springer-Verlag.

Computational Complexity.  
Two weeks in the summer of 2000 at the Institute of Advanced  
Study in Princeton NJ funded by Park City Mathematics.

MAA PREP Program, Summer 2011  
Use of Sagemath workbook to enhance mathematics courses.

Many other short courses and mini-courses of one or two day duration.