

## ABBREVIATED CURRICULUM VITAE

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### PROFESSIONAL INTERESTS:

*RESEARCH INTERESTS:* Primary interest in Set Theory, Classical Analysis, Point Set Topology and Mathematical Logic. Secondary interest in Graph Theory, Combinatorics and Theory of Computation.

*TEACHING INTERESTS:* Foundations of Mathematics (Axiomatic Set Theory, Mathematical Logic), Classical Analysis and Topology, and Discrete Mathematics (Theory of Computation, Combinatorics, Graph Theory).

### EDUCATIONAL BACKGROUND, HONORS, AND ORGANIZATIONS:

Bsc.(Mathematics), A.R.C.S.: *Imperial College of Science and Technology*  
M.S. (Mathematics), Ph.D.(Mathematics): *California Institute of Technology*

National Merit Scholarship, Imperial College Math Scholarship,  
FIU Performance Award, FIU Teaching Incentive Program Award

Mathematical Association of America

### COURSES TAUGHT at FLORIDA INTERNATIONAL UNIVERSITY:

Advanced Calculus I (Analysis I), Advanced Calculus II (Analysis II), Axiomatic Set Theory, Calculus I, Calculus II, Calculus III (Multi-variable Calculus), Combinatorics, Discrete Mathematics, Graduate Real Analysis, Graduate Descriptive Set Theory, Graph Theory, Introduction to Analysis, Introduction to Differential Equations, Introduction to Advanced Mathematics, Linear Algebra, Mathematical Logic, Pre-Calculus Mathematics, Theory of Algorithms, and Undergraduate & Graduate Independent Study Courses.

### SELECTED PROFESSIONAL SERVICE

1. Refereed research papers for the *Proc. American Math. Soc.*, *Indian Journal of Math.*, and *the Real Analysis Exchange*. 2000 - present
2. Peer Reviewer, *National Research Council - Collaboration in Basic Science and Engineering Program (COBASE)*. 2001 - present
3. Chair of the Special Session for Contributed Papers, *American Mathematical Society meeting*, Florida International University, Miami. April 2006
4. Research Grant Reviewer, *Georgian National Science Foundation, State Science Grant Competition*. 2007 - present

### SELECTED PREPRINTS:

1. Ordinal ranks for hypersets (13 pages)
2. .Equational logic and abstract algebra (12 pages)

## SELECTED PUBLICATIONS

1. The complexity of nowhere differentiable continuous functions, *Canadian Journal of Math.*, Vol. 41 no.1 (1989), 83-105.
2. Three ordinal ranks for differentiable functions, *Journal of Mathematical Analysis & its Applications*, Vol. 158 no.2, (1991), 539-555.
3. The complexity of everywhere divergent Fourier series, *Canadian Journal of Math.*, Vol. 43 no.2, (1991), 413-424.
4. Nowhere analytic  $C^4$  functions, *Journal of Mathematical Analysis & its Applications*, Vol. 160 no.1, (1991), 263-266.
5. The family of compact porous sets, *Proceedings of the 14th Annual Real Analysis Summer Symposium* (1992).
6. Nina Karlovna Bari: Her life and her mathematics, *Biographical Encyclopedia of Mathematicians*, D. Franceschetti (ed.), Marshall Cavendish (1998), 39-41.
7. Thoralf Skolem: His life and his mathematics, *Biographical Encyclopedia of Mathematicians*, D. Franceschetti (ed.), Marshall Cavendish (1998), 470-473.
8. Simply-connected compact sets in the plane, *Journal of Mathematical Analysis and Applications*, Vol. 237 (1999), 240-252.
9. The levels and complexity of hypersets, *Far East Journal of Mathematical Sciences*, Vol.9 (2003), 327-341.
10. Nullary relations, 0-ary functions, and truth in empty domains, *Far East Journal of Mathematical Sciences*, Vol.30 (2008), 193-203.

## SELECTED CONFERENCE PRESENTATIONS & TALKS

- 1 The linear and circular pursuit problems, *F.I.U. Math Club Lectures*, (Feb. 7, 1998).
- 2 Ranks for non-well-founded sets, *Annual meeting of the Florida section of the Math. Assoc. of America* (March 6-7, 1998).
- 3 Abel=s theorem and Cauchy=s convergence problem, *Math. Assoc. of America, South Florida section meeting* (February 2, 1999).
4. The lion and the goat: some circular pursuit problems, *Math. Assoc. of America, South Florida section meeting* (November 19, 1999).
5. Functions of zero variables, truth in empty domains & other strange notions, *Math. Assoc. of America, South Florida section meeting* (Nov. 17, 2000).
- 6 Equational logic and abstract algebra, *Annual meeting of the Florida section of the Math. Assoc. of America* (March 2-3, 2001).
7. Tales of circular pursuits, *F.I.U. Math. Club Lectures* (October, 2003).
8. Combinatorial games, *F.I.U. Math. Club Lectures* (November, 2004).
9. Minimal representations of Scott and Finsler pseudo-sets, *Annual meeting of the Florida section of the Math. Assoc. of America* (February 17-18, 2006).
10. Can the Devil trap an n-Angel, *F.I.U. Math. Club Lectures* (February, 2007).