CURRICULUM VITAE

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Education

- University of Nerbraska–Lincoln, 1979. B.Sc. in Mathematics. Minors: Physics, English.
- Cornell University, 1979. M.Sc. in Mathematics.
- Cornell University, 1990. M.Sc. in Computer Sciences. Ph.D. in Mathematics.
  Dissertation: *Relating Kripke Models in Realizability.* Advisor: Anil Nerode.

Teaching and Research Appointments

- Assoc. Professor of Computer Science, Dept. of Mathematics, Wesleyan University, 1997.
- Asst. Professor of Computer Science, Dept. of Mathematics, Wesleyan University, 1993–1996.
- Instructor, , Dept. of Mathematics, University of Pennsylvania, 1990–1993
- Visiting Scientist, Mathematical Sciences Institute (MSI), Cornell, summer 1991.
- Postdoctoral Research Associate, Dept. of Computer Sciences and MSI, Cornell, Jan–Sept. 1990.

Visiting Appointments

Visiting Researcher, Technical University of Madrid, Oct.–Dec.2000
Visiting Researcher, University of Pisa, Sept. 2000.
Visiting Researcher, Technical University of Madrid, Oct.–Dec.1997
Visiting Researcher, University of Pisa, Jun.–Oct. 1997.
Visiting Researcher, Isaac Newton Institute, Cambridge University, Aug–Sept. 1995.
Visiting Professor of Computer Science, University of Nancy, France, May–June 1994 &1995.

Fellowships

Sloane Dissertation Fellow, July 1900 – August 1989.
MSI Graduate Research Fellow, 1987–1988, summer 1987, summer 1988.
Hutchinson Fellow , spring 1987.

Work Experience

Consultant, Logic Programming and Expert Systems, Mathematical Science Institute, Cornell, 1987–1990.

Languages

Fluent in written and spoken Spanish, comfortable with spoken French.

Research Interests

Relational andLogic Programming, Intuitionistic Semantics, Constructive Set Theory, Categorical Logic

Selected Publications

"A New Framework for Declarative Programming" *Theoretical Computer Science,* *(*with Peter Freyd and Stacy Finkelstein), to appear, 2000.

"Encapsulating data in logic programming via categorical constraints" (with R. McGrail), in C. Palamidessi, H.Glaser, and K.Meinke, editors, *Principles of Declarative Programming*, volume 1490 of LNCS, Springer Verlag, 1998.

"Some Intuitions Behind Realizability Semantics for Constructive Logic: Tableaux and Läuchli Countermodels" *Annals of Pure and Applied Logic*, pp. 187–239, vol 81, Elsevier North–Holland, (with Michael O´Donnell), 1996.

"Type, Theory and Inhabitation: A Constructive Completeness Theorem for Martin–Löf Type Theory" to appear in the *Annals of Pure and Applied Logic.*

"Combinatory Logic Programming: Computing In Relation Calculi" in *Proceedings of the 1994 International Symposium on Logic Programming,* M. Bruynooghe, ed. M.I.T. Press, pp. 269–285, (with Paul Broome), 1994.

"Logic Programming in Tau–Categories", in *Computer Science Logic '94*, LNCS 933,Springer, pp. 249–263, (with Peter Freyd and Stacy Finkelstein), 1995.

"Provability in TBLL (the Tensor Bang Fragment of Linear Logic)", in *Computer Science Logic* (proceedings of CSL '91, Bern), LNCS 613, Springer–Verlag, pp. 53–67, (with J. Chirimar), 1992. Expanded version appeared as Univ. of Pennsylvania Technical eport, 1993.

"Constructive Kripke Semantics and Realizability" in *Logic for Computer Science*, Y.N. Moschovakis, ed. MSRI Publications, vol. 21, Springer, pp. 319–358, 1991.

"Kripke Semantics for Dependent Type Theory and Realizability Interpretations", in *Constructivity in Computer Science,* LNCS 613, Springer–Verlag, pp. 22–31, 1991.

Invited Publications

"Realizability, Set Theory and Term Extraction", in The Curry–Howard Isomorphism, 8ème volume des cahiers du centre de logique de L'Université Catholique de Louvain, pp. 257–364, 1994.

"Intuitive Counterexamples for Constructive Fallacies", in Mathematical *Foundations of Computer Science 1994 – MFCS ´94, Kosice, Slovakia, August 1994 –* LNCS 841*, 87–111, (*with Michael O'Donnell), 1994.

Short Courses Taught

Lambda calculus, type theory and linear logic given at the Latin American Symposium on Mathematical Logic, ASL meeting, Bahía Blanca, Argentina. August 1992.
Intuitionistic and Categorical Logic, University of Nancy, France, May–June 1994.
Linear Logic, Uniform Proof Systems, Categories and Logic Programming, Bahía Blanca, Argentina. August 1996.
Categorical Methods in Logic Programming, University of Pisa, June 1997.
Lambda–prolog and related logic programming extensions, Technical University of Madrid, 1997, 2000.

Workshops Organized: "Categories and Logic Programming", Isaac Newton Institute, Cambridge University, 1995.

Grants:

- 1991–1993: Adjunct researcher, NSF grant on *Higher order Proof Systems*, Andrei Scedrov and Dale Miller PI's, Univ. of Pennsylvania.
- 1992–1995: *Programming with Relations,* ONR, Co–PI with Peter Freyd, Penn.
- 1995–1997: *Categorical and Relational Logic Programming*, ONR, co.PI´s Peter Freyd , Penn. ,Daniel Dougherty, Wesleyan, Stacy Finkelstein, McGill.
- 1995–1996: Travel grant to participate in the *Semantics of Computation* program, Newton Institute, Cambridge Institute, Fall '95, ONR , co–PI: Peter Freyd, Penn.
- 1997, 2000: CNR Research Grant, *Categorical Logic Programming,*University of Pisa.

PH.D. Students:

- Robert McGrail, Wesleyan University: *Monads, Control and Side Effects in Logic Programming*.
- Mary de Marco, Wesleyan University: *Semantics of Higher Order Hereditarily Harrop Logic Programming.*
- Claudio Gutierrez, Wesleyan University: *The Arithmetic and Geometry of Allegories: Normal Forms and Complexity in a Fragment of the Theory of Relations.*

M.A. Students:

- Matt Ruhlen, Wesleyan University: *Relational Compilation of Declarative Programs,* 1998.