Alberto Peretti

Curriculum vitæ

Dipartimento di Scienze economiche
Università di Verona
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Biographical notes

Born in Vicenza (Italy), April 4 1959

Accademic positions

since 2007 Associate Professor of Mathematics at the University of Verona.
1998–2006 Associate Professor of Mathematics at the University of Milano–Bicocca
1988–1997 Researcher of Mathematics at the University of Verona.

Education

1986–1987 Winner of a C.N.R. fellowship for research activities in parallel computing and optimization at Hatfield Polytechnic (Hertfordshire U.K.)
1984 Master degree in Mathematics, University of Padua, with the thesis "A constrained combinatorial optimization problem"
1979 Classical high school diploma

Teaching activities

at the University of Verona

2007–2025 Mathematics (SECS-S/06)
2015–2022 Mathematical models for economic and business decisions (SECS-S/06)
2015–2022 Mathematics for economic and financial decisions (SECS-S/06)
2010–2015 Mathematical models for business and economics (module) (SECS-S/06)
2010–2019 Member of the teaching staff in the PhD in Economics and Mamagement
2009 Financial Mathematics (module) (SECS-S/06)
1995–1999 Mathematics for Economists (S04/A)
1993–1998 Mathematics (S04/A)
1993–1998 Exercises of Mathematics (S04/A)

at the University of Milano–Bicocca

2004–2006 Linear Algebra (MAT/02)
1999–2006 Financial Mathematics (SECS-S/06)
2003–2006 Elements of Mathematical Analysis II for the PhD in Statistics
2002–2004 Mathematics (SECS-S/06)
2001–2003 Mathematics (MAT/05)
2000–2002 Optimization methods for the PhD in Economics
1999–2001 Methods and models for economics (SECS-S/06)
2001 Exercises of Linear Algebra (MAT/02)
1999–2000 Mathematics (S04/A)

Research activities

My research fields have been the combinatorial optimization, in particular algorithms for the minimum spanning tree problem in a graph, parallel computing for local and global memory machines, parallel algorithms for the factorization of matrices and the solution of linear systems. More recently my research areas involve mathematical programming, static optimization, nondifferentiable optimization, numerical methods for optimization, theory and methods for portfolio optimization in the mean–variance approach.

Publications

[1] L. Pellegrini and A. Peretti. Una procedura per risolvere un sistema lineare di complementarità. *Periodico di Matematiche*, 100(1-2):83–94, 2024.

[2] A. Peretti. A procedure for solving a linear complementarity system. Working paper 8, Dipartimento di Scienze economiche, Università di Verona, 2024.

[3] L. Pellegrini and A. Peretti. A procedure for solving a linear complementarity system. Working paper 8, Dipartimento di Scienze economiche, Università di Verona, 2023.

[4] G. Mastroeni, L. Pellegrini, and A. Peretti. On linear problems with complementarity constraints. *Optimization Letters*, 16:2241–2260, 2022.

[5] G. Mastroeni, L. Pellegrini, and A. Peretti. Some numerical aspects on a method for solving linear problems with complementarity constraints. Working paper 16, Dipartimento di Scienze economiche, Università di Verona, 2021.

[6] L. Pellegrini and A. Peretti. A linear model for ranking the soccer championship. *Periodico di Matematiche*, 12(1-2):77–89, 2020.

[7] G. Mastroeni, L. Pellegrini, and A. Peretti. On linear problems with complementarity constraints. Working paper 21, Dipartimento di Scienze economiche, Università di Verona, 2019.

[8] A. Peretti. A linear model for ranking soccer teams. *Journal of Interdisciplinary Mathematics*, 22(3):243–263, 2019.

[9] A. Peretti. A constrained minimum spanning tree problem. Working paper 8, Dipartimento di Scienze economiche, Università di Verona, 2018.

[10] A. Peretti. Un criterio generale di divisibilità di due interi. *Periodico di Matematiche*, 7(1):41–59, 2017.

[11] A. Peretti. A linear model for a ranking problems. Working paper 20, Dipartimento di Scienze economiche, Università di Verona, 2017.

[12] A. Peretti. The algebraic approach to some ranking problems. Working paper 22, Dipartimento di Scienze economiche, Università di Verona, 2016.

[13] A. Peretti. Some notes on divisibility rules. Working paper 19, Dipartimento di Scienze economiche, Università di Verona, 2015.

[14] A. Peretti. A mapping associated to a quadratic optimization problem with linear constraints. Working paper 22, Dipartimento di Scienze economiche, Università di Verona, 2014.

[15] A. Peretti. On a particular mapping in $\mathbb{R}^n$. Working paper 68, Dipartimento di Scienze economiche, Università di Verona, 2009.

[16] E. Colicino and A. Peretti. Copula functions: general features and an application to risk management. Working paper 5, Dipartimento di Statistica, Università di Milano-Bicocca, 2007.

[17] A. Peretti. A gradient-like method for quasidifferentiable optimization. *Journal of Information & Optimization Sciences*, 25(2):271–286, 2004.

[18] A. Peretti. On the selection of an efficient portfolio in the mean-variance approach. *Journal of Interdisciplinary Mathematics*, 7(1):41–59, 2004.

[19] A. Peretti. Ill-conditioned efficient portfolios. In *Recent Advances in Optimization, Varese*, 2003.

[20] A. Peretti. Sulla determinazione dei portafogli efficienti nel criterio media-varianza. Working paper 4, Dipartimento di Statistica, Università di Milano-Bicocca, 2001.

[21] A. Peretti. Sulla selezione del portafoglio ottimo: un metodo alternativo per la costruzione della frontiera efficiente. In *Atti del XXIII Convegno Nazionale A.M.A.S.E.S., Rende*, 1999.

[22] A. Peretti. Some numerical tests on quasidifferential optimization. In *Proceedings of the Symposium on Generalized convexity and optimization for economic and financial decisions, Verona*, pages 333–346. Pitagora Editrice Bologna, 1999.

[23] A. Peretti. Alcuni test numerici su un metodo di ottimizzazione per funzioni quasidifferenziabili. In *Atti del XXII Convegno Nazionale A.M.A.S.E.S., Genova*, pages 673–675, 1998.

[24] A. Peretti. Minimization of a quasidifferentiable function: a method for doing it in practice. In *Atti del XXI Convegno Nazionale A.M.A.S.E.S., Roma*, pages 933–934, 1997.

[25] A. Peretti. Improving a method for subdifferentiable optimization. In *Atti del XX Convegno Nazionale A.M.A.S.E.S., Urbino*, pages 749–752, 1996.

[26] A. Peretti and C. Sutti. Parallel minimization algorithms by generalized subdifferentiability. *Wuhan University Journal of Natural Sciences*, 1(3/4):531–540, 1996.

[27] P.V. Dolci, A. Peretti, D. Rizzi, A. Roveda, and C. Sutti. On the feasibility of a parallel financial code on cray t3d. Report, CINECA, 1995.

[28] A. Peretti, A. Roveda, and C. Sutti. Libraries for the implementation of parallel numerical methods using regular grids. Report, CINECA, 1995.

[29] A. Peretti, A. Roveda, and C. Sutti. Non differentiable optimization codes for parallel computers. Report, CINECA, 1995.

[30] A. Peretti and C. Sutti. Monotone, convex and first order maps in optimization of nonsmooth lipschitz functions. *Optimization*, 33:105–117, 1995.

[31] A. Peretti. Relations on the pairs of convex and compact sets. In *Atti del XVIII Convegno Nazionale A.M.A.S.E.S., Modena*, pages 449–458. Pitagora Editrice Bologna, 1994.

[32] A. Peretti. Performance of a nonsmooth minimization method based on the monotone generalized derivative. In *Proceedings of the 15th International Symposium on Mathematical Programming, Ann Arbor (Michigan U.S.A.)*, 1994.

[33] A. Peretti. Quasidifferential optimization algorithms in a parallel computation environment. In *International Transactions in Operational Research*, volume 1, pages 337–344. Pergamon Press, Great Britain, 1994.

[34] A. Peretti. A quasidifferential optimization algorithm in a local memory parallel environment. In *Proceedings of the Working Day "Mathematical Optimization: Theory, Methods and Applications"*. Libreria Universitaria Editrice, Verona, 1993.

[35] A. Peretti. Ottimizzazione quasidifferenziabile con i transputers. In *Atti del XVI Convegno Nazionale A.M.A.S.E.S., Treviso*, pages 567–573. Edizioni Riva Artigrafiche, Trieste, 1992.

[36] A. Peretti and C. Sutti. Analytical and computational advances in quasidifferential calculus for nonsmooth optimization. In *Proceedings of the 10th Course on Nonsmooth Optimization: methods and applications*. Gordon & Breach, 1992.

[37] A. Peretti and C. Sutti. Parallel nonsmooth optimization methods by quasidifferential calculus. In *Proceedings of the 13th IMACS World Congress on Computation and Applied Mathematics, July 1991, Dublin*. Criterion Press, Dublin, 1991.

[38] A. Peretti and C. Sutti. Parallel nonsmooth optimization by quasidifferential calculus. Technical Report 1/28, C.N.R., 1990.

[39] A. Peretti and C. Sutti. Parallel algorithms for nonsmooth optimization. In *Proceedings of Parallel Computing 89, Leiden, Sep. 1989*, pages 255–261. Elsevier Science Publishers, 1990.

[40] A. Peretti and A. Roveda. Esperienze di calcolo parallelo all'università di verona. In *Proceedings of Supercomputing Tools for Science and Engineering, Pisa, Dec. 1989*, Progetto finalizzato Sistemi Informatici e Calcolo Parallelo, pages 681–686. Collana scientifica Franco Angeli, 1989.

[41] A. Peretti and C. Sutti. Vector and parallel performances of minimization algorithms based on homogeneous models. In *Parallel Computing, Methods, Algorithms and Applications: Proceedings of the International Meeting on Parallel Computing, Verona, Sep. 1988*, pages 213–224. Adam Hilger, Great Britain, 1989.

[42] A. Peretti and C. Sutti. Sequential and parallel implementations of an algorithm for the factorization of a matrix with rare banded matrices. Technical Report 186, Numerical Optimization Centre, The Hatfield Polytechnic (U.K.), 1987.

[43] A. Peretti. Un problema combinatorio di ottimizzazione con vincoli. Technical report, Istituto di Matematica, Facoltà di Economia e Commercio, Università degli Studi di Verona, 1985.

Affiliations

Since 1991 I am member of the Unione Matematica Italiana (U.M.I.) and the Associazione per la Matematica Applicata alle Scienze Economiche e Sociali (A.M.A.S.E.S.).