



MAURO FERRARI
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Printable Version

Contact data

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Biography

1990: Degree in Computer Science at the University of Milan

1997: Ph.D. in Computer Science, University of Milan

2000-2004: Assistant Professor at the Department of Computer Science, University of Milan

2005- : Associate Professor at the Department of Informatics Computer Science and Communication, University of Insubria

Research interests

- Intermediate and constructive logics
- Proof theory of constructive formal systems
- Complexity of proofs
- intuitionistic modal logics
- Tableau calculi for intuitionistic modal logics and intermediate logics
- Program-synthesis, proofs-as-programs, ADT specification

Teaching experience and appointments

Teaching assignments (2004/05)

- Computer Programming
- Theoretical Computer Science
- Formal Methods

Representative publications

M. Ferrari, C. Fiorentini, and G. Fiorino. On the complexity of the disjunction property in intuitionistic and modal logics. ACM, TOCL, 6(3):519-538, 2005.

M.Ferrari and G. Pighizzini. Dai fondamenti agli oggetti. Corso

di programmazione Java (seconda edizione). Pearson Education Italia, 2005.

M. Ornaghi, M. Benini, M. Ferrari, C. Fiorentini, and A. Momigliano. A Constructive Modeling Language for Object Oriented Information Systems. Proceedings of Constructive Logic for Automated Software Engineering, to appear.

A. Avellone, M. Ferrari, C. Fiorentini, G. Fiorino and U. Moscato. ESBC: an application for computing stabilization bounds Proceedings of Constructive Logic for Automated Software Engineering, to appear.

M. Ferrari, C. Fiorentini, and G. Fiorino. A secondary semantics for second order intuitionistic propositional logic. *Mathematical Logic Quarterly*, 50(2):202-210, 2004.

M. Ferrari and C. Fiorentini. A proof-theoretical analysis of semiconstructive intermediate theories. *Studia Logica*, 73(1):21-49, 2003.

M. Ferrari, P. Miglioli, and M. Ornaghi. On uniformly constructive and semiconstructive formal systems. *Logic Journal of the IGPL*, 11(1):1-49, 2003.

M. Ferrari, C. Fiorentini, and G. Fiorino. On the complexity of disjunction and explicit definability properties in some intermediate logics. In *LPAR 2002: Logic for Programming Artificial Intelligence and Reasoning*, number 2514 in *Lecture Notes in Artificial Intelligence*, pages 175-189. Springer-Verlag, 2002.

M. Ferrari, C. Fiorentini, and M. Ornaghi. Extracting exact time bounds from logical proofs. In A. Petterossi, editor, *Logic Based Program Synthesis and Transformation, 11th International Workshop, LOPSTR 2001, Selected Papers*, volume 2372 of *Lecture Notes in Computer Science*, pages 245-265. Springer-Verlag, 2002.

M. Ferrari, C. Fiorentini, and G. Fiorino. Tableau calculi for the logics of finite k-ary trees. In *TABLEAUX 2002, Automated Reasoning with Analytic Tableaux and Related Methods*, volume 2381 of *Lecture Notes in Artificial Intelligence*, pages 115-129. Springer-Verlag, 2002.

M. Ferrari, C. Fiorentini, and M. Ornaghi. Extracting exact time bounds from logical proofs. In A. Pettorossi, editor, *Pre-Proceedings of LOPSTR'01: Logic-Based Program Synthesis and Transformation*, pages 132-140, 2001.

A. Ciabattoni and M. Ferrari. Hypersequent calculi for some intermediate logics with bounded Kripke models. *Journal of Logic and Computation*, 11(2):283-294, 2001.

A. Avellone, M. Ferrari, and C. Fiorentini. A formal framework for synthesis and verification of logic programs. In K. K. Lau, editor, *Logic Based Program Synthesis and Transformation, 10th International Workshop, LOPSTR 2000, Selected Papers*, volume 2042 of *Lecture Notes in Computer Science*, pages 1-17. Springer-Verlag, 2001.

M. Ferrari, C. Fiorentini, and P. Miglioli. Extracting information from intermediate semiconstructive HA-systems (extended abstract). *Mathematical Structures in Computer Science*, 11:589-696, 2001.

A. Ciabattoni and M. Ferrari. Hypertableau and path-hypertableau calculi for some families of intermediate logics. In R. Dyckhoff, editor, *TABLEAUX 2000, Automated Reasoning with Analytic Tableaux and Related Methods*, volume 1947 of *LNAI*, pages 160-174. Springer-Verlag, 2000.

M. Ferrari, C. Fiorentini, and P. Miglioli. Goal oriented information extraction in uniformly constructive calculi. In *Argentinian Workshop on Theoretical Computer Science (WAIT'99)*, pages 51-63. Sociedad Argentina de Informática e Investigación Operativa, 1999.

A. Avellone, M. Ferrari, and P. Miglioli. Synthesis of programs in abstract data types. In *8th International Workshop on Logic-based Program Synthesis and Transformation*, volume 1559 of *Lecture Notes in Computer Science*, pages 81-100. Springer-Verlag, 1999.

A. Avellone, M. Ferrari, P. Miglioli, and U. Moscato. A tableau calculus for Dummett predicate logic. In Walter A. Carnielli and Itala M. D'Ottaviano, editors, *Advances in Contemporary Logic and Computer Science*, volume 235 of *Contemporary Mathematics*, pages 135-151. American Mathematical Society, 1999.

A. Avellone, M. Ferrari, and P. Miglioli. Duplication-free tableau calculi and related cut-free sequent calculi for the interpolable propositional intermediate logics. *Logic Journal of the IGPL*, 7(4):447-480, 1999.

A. Avellone, M. Ferrari, and P. Miglioli. Synthesis of programs in abstract data types (extended abstract). In *Pre-Proceedings of LOPSTR'98*. Depart. of Computer Science, University of

Manchester, UMCS-98-6-1, 1998.

A. Avellone, M. Ferrari, P. Miglioli, and U. Moscato. A tableau calculus and a cut-free sequent calculus for Dummett predicate logic. In H.C.M. de Swart, editor, Position Papers, pages 1-18. International Conference TABLEAUX'98, Analytic Tableaux and Related Methods, Katholieke Universiteit Brabant, 1998.

M. Ferrari. Cut-free tableau calculi for some intuitionistic modal logics. *Studia Logica*, 59(3):303-330, 1997.

M. Ferrari. Strongly Constructive Formal Systems. PhD thesis, Dipartimento di Scienze dell'Informazione, Università degli Studi di Milano, Italy, 1997.

A. Avellone and M. Ferrari. Almost duplication-free tableaux calculi for propositional Lax logics. In P. Miglioli, U. Moscato, D. Mundici, and M. Ornaghi, editors, Proceedings of the 5th Workshop on Theorem Proving with Analytic Tableaux and Related Methods, volume 1071 of

LNAI, pages 48-64. Springer-Verlag, 1996.

M. Ferrari and P. Miglioli. A method to single out maximal propositional logics with the disjunction property II. *Annals of Pure and Applied Logic*, 76:117-168, 1995.

M. Ferrari and P. Miglioli. A method to single out maximal propositional logics with the disjunction property I. *Annals of Pure and Applied Logic*, 76:1-46, 1995.

M. Ferrari and P. Miglioli. Counting the maximal intermediate constructive logics. *Journal of Symbolic Logic*, 58(4):1365-1401, 1993.