Curriculum Vitae

Roberto Di Cosmo

EMPLOIS DANS L'UNIVERSIT'E:

1er Septembre 1993 - Maître de conférences à l'École Normale Supérieure de Paris,

1er Octobre 1992 - 31 Août 1993 ATER à l'École Normale Supérieure de Paris.

DATE ET LIEU DE NAISSANCE: Je suis né à Parma, en Italie, le 19 Decembre 1963.

LANGUES: Je parle courramment l' Italien (ma langue mère), le Français, l'Anglais et l'Espagnol.

SERVICE MILITAIRE: Sous-lieutenant dans les Service des Transmission de l'Armée Italienne pour le period Avril 1987 - Juin 1988.

ETUDES DOCTORALES: Après le service militaire, j'ai reçu une bourse pour faire les études de doctorat en informatique au Departement d'Informatique de l'Université de Pise. Je soutiens ma thèse *Isomorphismes de Types* à Pisa le 25 Janvier 1993.

PARTICIPATION A CONFERENCES:

1986 X Mathematical Logics meeting on *Logics and Computer Science* (Siena, 1986)

1986 *Logics and Computer Science: new trends and applications* (Torino, October 1986).

1989 International Summer School on Logiç Algebra and Computation, Marktoberdorf, (25/7/89 - 6/8/89)

1990 ACM Symposium on Principles of Programming Languages (POPL) (January 1990)

1990 4th Jumelage Meeting (Bari, June 1990, Je fais un seminaire intitule' *Invertibility of terms in typed lambda calculus with surjective pairing*)

1990 CLICS 1990 (Paris, September 1990, Je fais les seminaires intitule's *Provable Isomorphisms of Types, Confluence for calculi with surjective pairing and terminal object.*)

1991 UNIF 1991 (Barbizon, June 1991, Je fais un seminaire intitule' *Provable Isomorphisms of Types.*)

1991 ICALP 1991 (Madrid, July 1991, Je presente le papier *[CDC91a].*)

1991 LICS 1991 (Amsterdam, July 1991)

1991 MFCS 1991 (Warsaw, September 1991)

1992 POPL 1992 (Albuquerque, January 1992, Je presente le papier *[DC92].*)

1992 CADE 1992 (Saratoga Springs, June 1992)

1992 LICS 1992 (Santa Cruz, June 1992)

1993 ICALP 1993 (Lund, July 1993, Je presente le papier *[DCK93a].*)

1993 Typed Lambda Calculus (Roma, December 1993, Je fais un seminaire intitule' *Confluence, Extensionality and Recursion in Typed Lambda Calculi*).

1994 ICALP 1994 (Jerusalem, July 1994, Je presente le papier *[DCK94a]*).

1994 ALP-PLILP 1994 (Madrid, September 1994).

SEMINAIRES:

1990 **Universitá di Torino** *Axiomatising Isomorphisms valid in every model.* Invite' par professeurM. Dezani-Ciancaglini.

1990 **Ecole Normale Supérieure** *Provable Isomorphisms of Types.* Invite' par professeurL. Fribourg.

1991 **Cambridge University** - England. *Second Order Isomorphisms of Types* and *Confluent reductions of typed lambda calculi. Visiting Scientist, 2/91.* Invite' par professeurA. Pitts.

1991 **UNIF 91** *Isomorphisms of Types: some results, some problems.*

1992 **INRIA** *Isomorphismes de Types: thèorie et pratique.*

1992 **DEC-PRL** *How to use Types, Number and Categories to find your function in the function library.*

1993 **DEC-PRL** *An Abstract Machine for LIFE.*

1993 **Object-Oriented Workshop, Stanford** *Which Types for the Objects?*

1994 **University of Pennsylvania** - Philadelphia, USA. *Confluence, extensionality and recursion in typed lambda calculi: some results and applications.*

1994 **University of La Plata** - Argentina. *Teoria y practica de los isomorfismos de tipo.*

1994 **CIRM** - Marseille. *How to combine first order algebraic rewriting systems, recursion and extensional lambda calculi*

1994 **GDR** - Lille. *Isomorphismes de types pour la composition dynamique de modules.*

ACTIVITE DE CONSULTANT:
STAGES DE RECHERCHE:
ENSEIGNEMENT:
ACTIVITES ADMINISTRATIVES ET RESPONSABILITES COLLECTIVES:

ACTIVITE DE RECHERCHE:

Dans cette bibliographie, un $*$ designe les travaux acceptes mais pas encore parus.

References

Livres, chapitres de livres, édition d'ouvrages collectifs

[DC95] Roberto Di Cosmo. *Isomorphisms of types: from λ-calculus to information retrieval and language design*. Birkhauser, 1995. ISBN-0-8176-3763-X.

Articles dans des revues internationales avec comité de lecture

[BDCL92] Kim Bruce, Roberto Di Cosmo, and Giuseppe Longo. Provable isomorphisms of types. *Mathematical Structures in Computer Science*, 2(2):231–247, 1992. Proc. of Symposium on Symbolic Computation, ETH, Zurich, March 1990.

[CDC95] * Pierre-Louis Curien and Roberto Di Cosmo. A confluent reduction system for the λ-calculus with surjective pairing and terminal object. *Journal of Functional Programming*, 1995. To appear. This is an extended and revised version of [CDC91a].

[DC93a] Roberto Di Cosmo. Deciding type isomorphisms in a type assignment framework. *Journal of Functional Programming*, 3(3):485–525, 1993. Special Issue on ML.

[DC94] * Roberto Di Cosmo. Second order isomorphic types. A proof theoretic study on second order ł-calculus with surjective pairing and terminal object. *Information and Computation*, 1994. To appear.

[DCK94b] Roberto Di Cosmo and Delia Kesner. Simulating expansions without expansions. *Mathematical Structures in Computer Science*, 4:1–48, 1994. A preliminary version is available as Technical Report LIENS-93-11/INRIA 1911.

Conférences invitées

[DCL91] Roberto Di Cosmo and Giuseppe Longo. Constuctively equivalent propositions and isomorphisms of objects (or terms as natural transformations). In *Logic for Computer Science*, volume 21 of *Mathematical Sciences Research Institute Publications*, pages 73–94. Springer Verlag, Berkeley, November 1991.

Communications dans des conférences internationales avec comité de lecture

[CDC91a] Pierre-Louis Curien and Roberto Di Cosmo. A confluent reduction system for the λ-calculus with surjective pairing and terminal object. In Leach, Monien, and Artalejo, editors, *Intern. Conf. on Automata, Languages and Programming (ICALP)*, volume 510 of *Lecture Notes in Computer Science*, pages 291–302. Springer-Verlag, July 1991.

[DC92] Roberto Di Cosmo. Type isomorphisms in a type assignment framework. In *19th Ann. ACM Symp. on Principles of Programming Languages (POPL)*, pages 200–210. ACM, 1992.

[DCK93a] Roberto Di Cosmo and Delia Kesner. A confluent reduction for the extensional typed $\lambda-$calculus with pairs, sums, recursion and terminal object. In Andrzej Lingas, editor, *Intern. Conf. on Automata, Languages and Programming (ICALP)*, volume 700 of *Lecture Notes in Computer Science*, pages 645–656. Springer-Verlag, July 1993.

[DCK94a] Roberto Di Cosmo and Delia Kesner. Combining first order algebraic rewriting systems, recursion and extensional lambda calculi. In Serge Abiteboul and Eli Shamir, editors, *Intern. Conf. on Automata, Languages and Programming (ICALP)*, volume 820 of *Lecture Notes in Computer Science*, pages 462–472. Springer-Verlag, July 1994.

[DCP95] * Roberto Di Cosmo and Adolfo Piperno. Expandic extensional polymorphism. *Typed Lambda Calculus and Applications*, 1995. To appear.

Thèses

[DC93c] Roberto Di Cosmo. Isomorphisms of types. Tesi di dottorato, Dipartimento di Informatica, Universitá di Pisa, 40, Corso Italia - 56100 Pisa - Italy, January 1993.

Notes de cours

[DDC92] Vincent Danos and Roberto Di Cosmo. Introduction to linear logic. Course Notes, June 1992.

Articles soumis ou en préparation

[DC93b] Roberto Di Cosmo. Extensional ML. Draft, November 1993.

Rapports du DMI

[BDCL90] Kim Bruce, Roberto Di Cosmo, and Giuseppe Longo. Provable isomorphisms of types. Technical Report 90-14, LIENS - Ecole Normale Supérieure, 1990. To appear in Proc. of Symposium on Symbolic Computation, ETH, Zurich, March 1990, *Mathematical Structures in Computer Science*, 2(2).

[CDC91b] Pierre-Louis Curien and Roberto Di Cosmo. A confluent reduction system for the λ-calculus with surjective pairing and terminal object. Technical Report 91-11, LIENS - Ecole Normale Supérieure, 1991.

[DC91] Roberto Di Cosmo. Invertibility of terms and valid isomorphisms. a proof theoretic study on second order ł-calculus with surjective pairing and terminal object. Technical Report 91-10, LIENS - Ecole Normale Supérieure, 1991.

[DCK93b] Roberto Di Cosmo and Delia Kesner. Simulating expansions without expansions. Technical Report LIENS-93-11/INRIA 1911, LIENS-DMI and INRIA, 1993.