

1. Record Nr.	UNINA9910143596803321
Titolo	Typed Lambda Calculi and Applications : 5th International Conference, TLCA 2001 Krakow, Poland, May 2-5, 2001 Proceedings // edited by Samson Abramsky
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2001
ISBN	3-540-45413-6
Edizione	[1st ed. 2001.]
Descrizione fisica	1 online resource (XII, 436 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2044
Disciplina	511.3
Soggetti	Mathematical analysis Analysis (Mathematics) Mathematical logic Computer logic Computer programming Programming languages (Electronic computers) Analysis Mathematical Logic and Foundations Mathematical Logic and Formal Languages Logics and Meanings of Programs Programming Techniques Programming Languages, Compilers, Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Lectures -- Many Happy Re urns -- From Bounded Arithmetic to Memory Management: Use of Type Theory to Capture Complexity Classes and Space Behaviour -- Definability of Total Objects in PCF and Related Calculi -- Categorical Semantics of Control -- Contributed Papers -- Representations of First Order Function Types as Terminal Coalgebras -- A Finitary Subsystem of the Polymorphic ?-Calculus -- Sequentiality and the ?-Calculus -- Logical Properites of Name Restriction -- Subtyping Recursive Games -- Typing Lambda Terms in Elementary Logic with Linear Constraints -- Ramied Recurrence with

Dependent Types -- Game Semantics for the Pure Lazy  $\lambda$ -Calculus --  
Reductions, intersection types, and explicit substitutions -- The  
Stratified Foundations as a Theory Modulo -- Normalization by  
Evaluation for the Computational Lambda-Calculus -- Induction Is Not  
Derivable in Second Order Dependent Type Theory -- Strong  
Normalization of Classical Natural Deduction with Disjunction --  
Partially Additive Categories and Fully Complete Models of Linear Logic  
-- Distinguishing Data Structures and Functions: The Constructor  
Calculus and Functorial Types -- The Finitely Generated Types of the  $\lambda$ -  
Calculus -- Deciding Monadic Theories of Hyperalgebraic Trees -- A  
Deconstruction of Non-deterministic Classical Cut Elimination -- A  
Token Machine for Full Geometry of Interaction (Extended Abstract) --  
Second-Order Pre-logical Relations and Representation Independence  
-- Characterizing Convergent Terms in Object Calculi via Intersection  
Types -- Parigot's Second Order  $\lambda$ -Calculus and Inductive Types --  
The Implicit Calculus of Constructions Extending Pure Type Systems  
with an Intersection Type Binder and Subtyping -- Evolving Games and  
Essential Nets for Affine Polymorphism -- Retracts in Simple Types --  
Parallel Implementation Models for the  $\lambda$ -Calculus Using the Geometry  
of Interaction (Extended Abstract) -- The complexity of  $\lambda$ -reduction in  
low orders -- Strong Normalisation for a Gentzen-like Cut-Elimination  
Procedure.

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### Sommario/riassunto

This book constitutes the refereed proceedings of the 5th International Conference on Typed Lambda Calculi and Applications, TLCA 2001, held in Krakow, Poland in May 2001. The 28 revised full papers presented were carefully reviewed and selected from 55 submissions. The volume reports research results on all current aspects of typed lambda calculi. Among the topics addressed are type systems, subtypes, coalgebraic methods, pi-calculus, recursive games, various types of lambda calculi, reductions, substitutions, normalization, linear logic, cut-elimination, prelogical relations, and mu calculus.

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