Librería Bonilla y Asociados





Título: Categories In Computer Science And Logic

Autor: Ams	Precio: \$855.00
Editorial:	Año: 1987
ſema:	Edición: 1 ^a
Sinopsis	ISBN: 9780821851005

Category theory has had important uses in logic since the invention of topos theory in the early 1960s, and logic has always been an important component of theoretical computer science. A new development has been the increase in direct interactions between category theory and computer science. In June 1987, an AMS-IMS-SIAM Summer Research Conference on Categories in Computer Science and Logic was held at the University of Colorado in Boulder. The aim of the conference was to bring together researchers working on the interconnections between category theory and computer science or between computer science and logic. The conference emphasized the ways in which the general machinery developed in category theory could be applied to specific questions and be used for category-theoretic studies of concrete problems. This volume represents the proceedings of the conference. (Some of the participants' contributions have been published elsewhere.)

The papers published here relate to three different aspects of the conference. The first concerns topics relevant to all three fields, including, for example, Horn logic, lambda calculus, normal form reductions, algebraic theories, and categorical models for computability theory. In the area of logic, topics include semantical approaches to proof-theoretical questions, internal properties of specific objects in (pre-) topoi and their representations, and categorical sharpening of model-theoretic notions. Finally, in the area of computer science, the use of category theory in formalizing aspects of computer programming and program design is discussed.

Table of Contents

M. Barr -- Models of Horn theories
A. Blass -- Geometric invariance of existential fixed-point logic
J. R. B. Cockett -- On the decidability of objects in a locos
V. C. V. de Paiva -- The Dialectica categories
P. J. Freyd -- Combinators
P. J. Freyd -- POLYNAT in PER

Librería Bonilla y Asociados

desde 1950



J.-Y. Girard -- Towards a geometry of interaction

J. W. Gray -- The category of sketches as a model for algebraic semantics

J. M. E. Hyland and A. M. Pitts -- The theory of constructions: Categorical semantics and topos-theoretic models

F. Lamarche -- A simple model of the theory of constructions

J. Lambek -- Multicategories revisited

D. M. Latch -- An application of minimal context-free intersection partitions to rewrite rule consistency checking

F. W. Lawvere -- Qualitative distinctions between some toposes of generalized graphs

J. C. Mitchell and P. J. Scott -- Typed lambda models and cartesian closed categories

P. S. Mulry -- Some connections between models of computation

R. Pare -- Some applications of categorical model theory

A. J. Power -- Coherence for bicategories with finite Bilimits I

L. Román -- On partial Cartesian closed categories

A. Scedrov -- Normalization revisited

R. A. G. Seely -- Linear logic, \$\ast\$-autonomous categories and cofree coalgebras