



NATO Science Committee		Fakultät für Informatik, Technische Universität München	
Advanced  Study Institute	International Summer School		Marktoberdorf
" PROOF AND COMPUTATION "		July 20 to August 1, 1993	

The "Marktoberdorf Summer School" is a course of two weeks duration for young computer scientists and mathematicians working in the fields of computational aspects of proofs, logical systems, and algebraic specifications. The course aims at the dissemination of advanced scientific knowledge and the promotion of international contacts among scientists.

The logical notion of a formal proof in various constructive systems can be viewed as a very explicit way to describe a computation procedure. Many aspects of computation can so be captured in an illuminative way: A good example is the modelling of bounded resources by means of linear logic. But also conversely the development of logical systems (e.g. for verification purposes) has been influenced by accumulating knowledge on rewriting and unification techniques, particularly in a higher order context.

It is the objective of the 1993 Summer School at Marktoberdorf, a small town 100 km southwest from Munich, to study the current reapprachment between logic and computation under methodological and algorithmic aspects.

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TOPICS and LECTURES

Specification and Abstract Data Types

M. WIRSING: Algebraic Specification Techniques
J. V. TUCKER: Many-Sorted Algebras for Hardware Design and Verification

Proving Techniques

G. JÄGER: Proof Theory and Logic Programming
H. SCHWICHTENBERG: Program Development by Proof Transformation
R. L. CONSTABLE: Constructive Type Theory

Constructive Methods

S. S. WAINER: Ordinal Analysis of Proofs and Computations
J.-P. JOUANNOUD: Rewriting Techniques

Linear Logic

J.-Y. GIRARD: Unifying Classical, Intuitionistic and Linear Logic
A. SCEDROV: Bounded Linear Logic

Concurrency and Logic

R. MILNER: Mobile Processes
W. BRAUER: Concurrent Processes and Petri Nets

DEADLINE for APPLICATION: March 19, 1993

Application forms are available by Internet news under news.announce.conferences or at the address below.

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