ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

14. Mathematical Aspects of Computer Science

1991 MS Classification: 68, 4
Matuszewski, Roman, University of Białystok, Poland (`romat@mizar.org`)
Journal of Formalized Mathematics – a collection of mechanically checked articles
Since 1989 we have been developing a cross-referenced data base of mathematical articles. Articles are written in the Mizar language, proofs are mechanically checked for logical correctness. The Mizar language tries to mimic the language used in traditional mathematical papers and monographs. The logical basis of Mizar system is a system of natural deduction close to *composite system of logic* developed by St. Jaśkowski.
The abstracts of Mizar articles – theorems and definitions without proofs – are automatically translated into English and typeset. Over 500 articles are collected in *Journal of Formalized Mathematics* – `http://mizar.org/JFM/`.
Among others, the following theories are covered at least to some extent: model theory, geometry, topology, algebra, continuous lattices, mathematical models of computations.