Journal of Automated Reasoning
Editor-in-Chief: T. Nipkow

- A forum of information for those interested purely in theory, those interested primarily in implementation, and those interested in specific research and industrial applications
- Coverage balances theory, implementation and application
- Focuses on a range of theoretical and applied topics in automated reasoning

The interdisciplinary Journal of Automated Reasoning balances theory, implementation and application. The spectrum of coverage ranges from the presentation of a new inference rule with proof of its logical properties to a detailed account of a computer program designed to solve various problems in industry. Topics include automated theorem proving, logic programming, expert systems, program synthesis and validation, artificial intelligence, computational logic, robotics, and various industrial applications. The contents focus on several aspects of automated reasoning, a field whose objective is the design and implementation of a computer program that serves as an assistant in solving problems and in answering questions that require reasoning.

The Journal of Automated Reasoning provides a forum and a means for exchanging information for those interested purely in theory, those interested primarily in implementation, and those interested in specific research and industrial applications.

Proof Pearls

In addition to regular research articles, the Journal of Automated Reasoning offers the special article type Proof Pearls. The goal is to disseminate insights gleaned from the growing body of machine-checked formalizations and proofs, obtained using both interactive and automated methods. Application areas include the full range from pure mathematics and logic to software and hardware verification. Proof Pearls should be short communications that focus on a few central ideas rather than extended research reports.

Contributions may include: a short, elegant proof of a self-standing result; a novel way of defining a fundamental concept; a notable approach to proving a key lemma in a larger development; a snippet of verified code, carefully engineered to balance efficiency with ease of verification; or a clever or impressive application of automated tools in a particular domain.

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