SECOND CALL FOR PAPERS

Automated Reasoning and Mathematics:
Essays in Memory of William McCune

Submission Deadline: **March 1st, 2012**
`http://profs.sci.univr.it/~bonacina/McCuneBook/McCuneBook.html`

AIM: This is a book of collected articles presenting research in all aspects of automated reasoning and its applications to mathematics to honor the memory of **William W. (Bill) McCune** and contribute to preserving his legacy. Bill McCune (`http://www.cs.unm.edu/~mccune/`) had an enormous impact on automated reasoning, especially with the development of a series of systems of astounding power, robustness, and portability, including the theorem provers Otter, EQP, Prover9, the parallel prover ROO, the proof checker Ivy, and the model builder MACE, preceded by the prototype SAT-solver ANL-DP. Bill McCune applied these systems to solve open problems in mathematics and logic, culminating with the fully automated solution in 1996 of the Robbins problem that had challenged mathematicians for over sixty years. This result brought unprecedented visibility to the field of automated deduction. For all his achievements, Bill McCune received the Herbrand Award in the year 2000 (`http://www.cadeinc.org/`).

SCOPE: We invite high-quality submissions on the general topic of automated reasoning and its applications, especially but not exclusively in mathematics, with connections to any of Bill McCune's research areas:

- Automated theorem proving

- Automated model building and constraint solving

- Implementation of and practice with automated reasoners

- Algorithmics for automated reasoners: unification, matching, rewriting, indexing

- Inference control, search plans and semantic guidance for automated reasoners

- Proof checking, proof presentation, proof explanation

- Application of automated reasoners in mathematics, logic, combinatory logic, many-valued logic, algebraic structures and their axiomatizations, set theory

- Applications related to formal methods

PUBLICATION DETAILS: It is planned that the book will be published as an LNAI Festschrift with Springer.

SUBMISSION INSTRUCTIONS: While it is expected that most of the papers will be regular technical papers, a few papers that combine scientific content with recollections of Bill McCune's work and personality, as can be written by those who worked with him, are also sought. All papers will be refereed by anonymous peer reviewers, and read by the editors, according to the highest standards in terms of originality, significance, technical quality, and readability. Submissions must be in English and standard conforming pdf format. They must be unpublished and not submitted for publication elsewhere. However, significantly extended versions of papers published at conferences are welcome. Submissions of any length will be considered, but final versions may be limited by the editors depending on the totality of submissions. Authors are strongly encouraged to produce their papers in LaTeX. Formatting instructions and the LNCS style files can be obtained via `http://www.springer.de/comp/lncs/authors.html`. Electronic submission via EasyChair is open at `https://www.easychair.org/account/signin.cgi?conf=mccunebook2012` also reachable from the book website.

SUBMISSION DEADLINE: March 1st, 2012
In order to facilitate the planning of the book, authors are invited to notify the editors as soon as possible of their intention to submit with proposed topic and length. Early submission would be especially helpful for completing the review process sooner.

EDITORS: **Maria Paola Bonacina** (Università degli Studi di Verona) and **Mark E. Stickel** (SRI International)