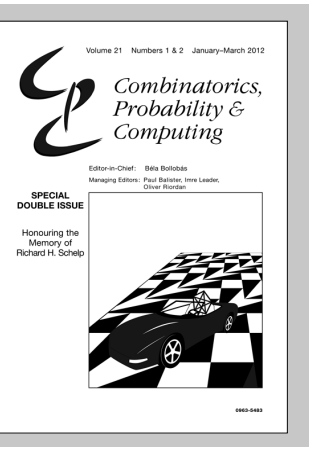
Combinatorics, Probability & Computing

Editor-in-Chief
Béla Bollobás, *DPMMS, Cambridge, UK; University of Memphis, USA*



Published bimonthly, *Combinatorics, Probability & Computing* is devoted to the three areas of combinatorics, probability theory and theoretical computer science. Topics covered include classical and algebraic graph theory, extremal set theory, matroid theory, probabilistic methods and random combinatorial structures; combinatorial probability and limit theorems for random combinatorial structures; the theory of algorithms (including complexity theory), randomised algorithms, probabilistic analysis of algorithms, computational learning theory and optimisation.

Combinatorics, Probability & Computing
is available online at:
http://journals.cambridge.org/cpc

To subscribe contact Customer Services

in Cambridge:
Phone +44 (0)1223 326070
Fax +44 (0)1223 325150
Email journals@cambridge.org

in New York:
Phone +1 (845) 353 7500
Fax +1 (845) 353 4141
Email
subscriptions_newyork@cambridge.org

Price information

is available at: **http://journals.cambridge.org/cpc**

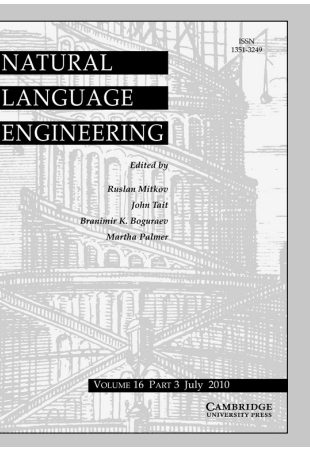
Free email alerts

Keep up-to-date with new material – sign up at
http://journals.cambridge.org/cpc-alerts

For free online content visit:
http://journals.cambridge.org/cpc

https://doi.org/10.1017/S0960129512001053 Published online by Cambridge University Press

Natural Language Engineering



Natural Language Engineering meets the needs of professionals and researchers working in all areas of computerised language processing, whether from the perspective of theoretical or descriptive linguistics, lexicology, computer science or engineering. Its aim is to bridge the gap between traditional computational linguistics research and the implementation of practical applications with potential real-world use. The journal publishes research articles on a broad range of topics, an industry-watch column and book reviews. *JNLE* now includes surveys, as well as squibs discussing specific problems.

https://doi.org/10.1017/S0960129512001053 Published online by Cambridge University Press

ReCALL:

An international journal on technologies and language learning

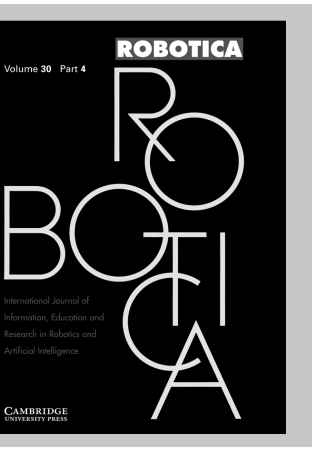
Published for EUROCALL (European Association for Computer-Assisted Language Learning)

The primary focus of *ReCALL* is the use of technologies for language learning and teaching, including all relevant aspects of research and development. Typical subjects for submissions include theoretical debate on language learning strategies and their influence on courseware design; practical applications at developmental stage; evaluative studies of courseware used in the teaching and learning process; exploitation and assessment of the potential of technological advances in the delivery of language learning materials; discussions of policy and strategy at institutional and discipline levels.

https://doi.org/10.1017/S0960129512001053 Published online by Cambridge University Press

Robotica

An Official Journal of the
International Federation of Robotics

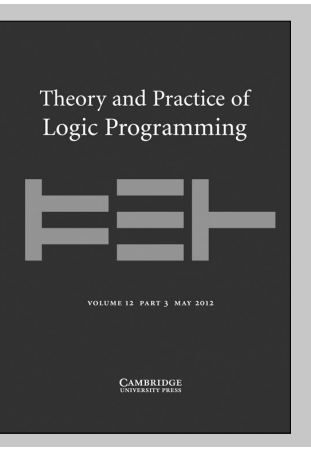


Robotica provides an international forum for the multidisciplinary subject of robotics and encourages developments in this important field of automation with regard to industry, education and research. It covers the many aspects of robotics, including sensory perception, software, kinematics and dynamics involved in robot design, robot task planning and description, intelligibility of skilled motion, applications of robots in the service industries, world model representation, artificial intelligence, development of relevant educational courses, training methods, economic and cost problems and other items of theoretical and practical interest.

https://doi.org/10.1017/S0960129512001053 Published online by Cambridge University Press

Theory and Practice of Logic Programming

Published for the Association for Logic programming



Theory and Practice of Logic Programming emphasises both the theory and practice of logic programming. Logic programming applies to all areas of artificial intelligence and computer science and is fundamental to them. Among the topics covered are AI applications that use logic programming, logic programming methodologies, specification, analysis and verification of systems, inductive logic programming, multi-relational data mining, natural language processing, knowledge representation, non-monotonic reasoning, semantic web reasoning, databases, implementations and architectures and constraint logic programming.

https://doi.org/10.1017/S0960129512001053 Published online by Cambridge University Press

Instructions for contributors

Editorial policy

Mathematical Structures in Computer Science (*MSCS*) is a journal of theoretical computer science which focuses on the application of ideas from the structural side of mathematics and mathematical logic to computer science. The journal aims to bridge the gap between theoretical contributions and software design, publishing original papers or broad surveys with original perspectives in all areas of computing, provided that ideas or results from logic, algebra, geometry, category theory or other areas of logic and mathematics form a basis for the work. The journal also welcomes applications to computing based on the use of specific mathematical structures (e.g. topological and order-theoretic structures) as well as on proof-theoretic notions or results. In addition, it is interested in contributions in new interdisciplinary fields bridging computer science, quantum physics, mathematics and information theory. In particular, papers on mathematical formalisms for quantum computation, quantum information processing and communication will be considered.

The journal will also consider papers on computational modelling of epigenetic phenomena, protein-protein interactions, stochasticity in molecular cascades. Mathematical approaches to System Biology will be welcomed, within the broad framework of post-genomic views of embryogenesis and evolution.

The purpose of the journal is to increase the circulation of new very high standard results in fast growing areas which are currently influencing various aspects of actual computing. Indeed, this journal is not meant to be only a 'theory journal' but, by choosing as a theme the use of mathematical methods of Computer Science independently of their area of application, it aims to highlight connections among different topics and to encourage applications of theoretical contributions.

In order to promote the use of mathematical methods in computer science, expository and introductory papers are welcome, provided that there is a clear connection to computational issues or they investigate mathematical structures whose relevance to computer science is well established. However, these contributions should be directed to the broad audience of computer scientists to which this journal is addressed. Equally, discussions of a methodological or philosophical nature concerning the foundation of Computer Science are of interest for the journal.

Submission of manuscripts

Papers may be submitted to any member of the Editorial Board. A file .pdf should be sent accompanied by the author's address, telephone and fax number, and e-mail address.

A copy of the paper together with the name of the editor chosen should also be sent to the Editor-in-Chief who will record the submission.

Submission of a paper is taken to imply that it has not been previously published and that it is not being considered for publication elsewhere. Authors of articles published in the journal assign copyright to Cambridge University Press (with certain rights reserved) and you will receive a copyright assignment form for signature on acceptance of your paper.

The publisher encourages submission of papers written in LaTeX using the *MSCS* LaTeX style file. The LaTeX 2.09 style file mscs.sty together with a guide to its use mscsguide.tex, or the corresponding LaTeX 2e file mscs.cls are available via anonymous ftp from the Cambridge University Press site at ftp.cup.cam.ac.uk in the directories /pub/texarchive/journals/latex/mscs-sty or /pub/texarchive/journals/latex/mscs-cls. In the directory /pub/texarchive/journals/latex/mscs-sty you will find a concatenated file called mscs.all. This file contains readme.txt, mscs.sty and mscguid.tex. If you Tex mscguid.tex you will get a full set of instructions for using the style file. In case of difficulties obtaining these files, there is a help-line available via e-mail; please contact texsupport@techbooks.com. While use of the *MSCS* LaTeX style file is preferred, ordinary LaTeX or plain TeX files can also be accepted.

On final acceptance of their paper, authors should make accessible to the Editor-in-Chief (downloadable) the LaTeX source code including all figures (line figures only), a file .pdf and author-defined macro and style files, together with a hard copy produced using the same file. Discs should be in Apple Mac or PC format and will not be returned. The publisher reserves the right to typeset any article by conventional means if the author's TeX code presents problems in production.

Layout of manuscripts

Papers should be typewritten in **double spacing throughout**, on one side of the paper. Please avoid footnotes if possible. Papers should begin with an abstract of not more than 300 words and should end with a brief concluding section.

Illustrations

Figures should be drawn in indian ink on good quality white paper or produced by computer to comparable quality. Wherever possible they will be reproduced with the author's original lettering. Originals of figures should not be sent until the paper has been accepted. A list of captions should be attached separately.

References

The Harvard system of references should be used. In the text, a reference should be quoted by the author's name and date in parentheses, in date order, e.g. (Smith 1983; Jones and Jones 1985; Hunter 1986a,b). Where there are three or more authors, the first name followed by et al. should be used. A full list of references should be given at the end of the main text, listing, in alphabetical order, surname of author and initials; year of publication (in parentheses); article title; journal name abbreviated in accordance with the *World List of Scientific Periodicals* (4th edn); volume number; inclusive page numbers. For books and conference proceedings, place of publication and publisher (and Editor(s) if appropriate) should be included.

Proof Reading

Typographical or factual errors only may be changed at proof stage. The publisher reserves the right to charge authors for correction of non-typographical errors. No page charge is made.

Offprints

Extra offprints may be purchased from the publisher if ordered at proof stage.

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge CB2 1RP, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 8RU, United Kingdom
32 Avenue of the Americas, New York, NY 10013–2473, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
C/Orense, 4, planta 13, 28020 Madrid, Spain
Lower Ground Floor, Nautica Building, The Water Club, Beach Road, Granger Bay, 8005 Cape Town, South Africa

MSCS FEBRUARY 2013 VOLUME 23 NUMBER 1

CONTENTS

Cambridge Journals Online
For further information about this journal please go to the journal website at:
journals.cambridge.org/msc

MIX
Paper from responsible sources
FSC® C018575
www.fsc.org

CAMBRIDGE UNIVERSITY PRESS