

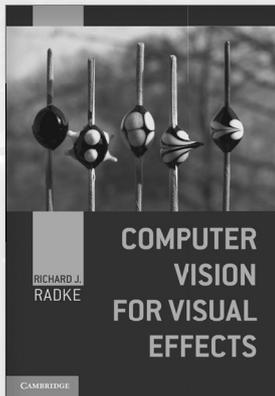
New Titles in Robotics from Cambridge University Press!

Plasticity in Sensory Systems

*Edited by Jennifer K. E. Steeves and
Laurence R. Harris*

This broad exploration of research in plasticity in sensory systems focuses on visual and auditory systems. Topics include visual and visuomotor learning, sensory adaptations as a result of visual loss in childhood, plasticity in the adult visual system, plasticity across the senses, and new techniques in vision recovery, rehabilitation, and sensory substitution.

\$120.00: Hardback: 978-1-107-02262-1: 320 pp.



Computer Vision for Visual Effects

Richard J. Radke

This book explores the fundamental computer vision principles and state-of-the-art algorithms used to create cutting-edge visual effects for movies and television. It describes classical computer vision algorithms and recent developments, features more than 200 original images, and contains in-depth interviews with Hollywood visual effects artists that tie the mathematical concepts to real-world filmmaking.

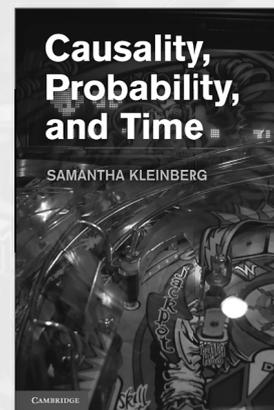
\$70.00: Hardback: 978-0-521-76687-6: 408 pp.

Causality, Probability, and Time

Samantha Kleinberg

This book presents a new approach to causal inference (finding relationships from a set of data) and explanation (assessing why a particular event occurred), addressing both the timing and complexity of relationships. The practical use of the method developed is illustrated through theoretical and experimental case studies, demonstrating its feasibility and success.

\$99.00: Hardback: 978-1-107-02648-3: 280 pp.



Prices subject to change.

www.cambridge.org/us/computerscience

800.872.7423

 @cambUP_maths



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

Natural Language Engineering

Executive Editor

Ruslan Mitkov, *University of Wolverhampton, UK*

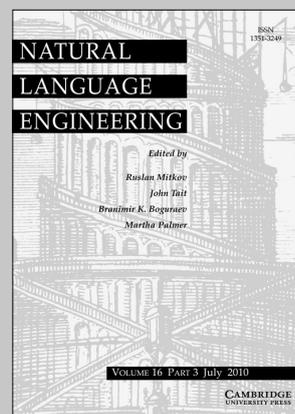
Natural Language Engineering meets the needs of professionals and researchers working in all areas of computerised language processing, whether from the perspective of theoretical or descriptive linguistics, lexicology, computer science or engineering. Its aim is to bridge the gap between traditional 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.

Price information

is available at: <http://journals.cambridge.org/nle>

Free email alerts

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



Natural Language Engineering
is available online at:
<http://journals.cambridge.org/nle>

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

For free online content visit:
<http://journals.cambridge.org/nle>



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

ReCALL:

An international journal on technologies and language learning

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

Editors

June Thompson, *University of Hull, UK*

Françoise Blin, *Dublin City University, Ireland*

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.

Price information

is available at: <http://journals.cambridge.org/rec>

Free email alerts

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



ReCALL:

is available online at:

<http://journals.cambridge.org/rec>

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

For free online content visit:
<http://journals.cambridge.org/rec>



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

Theory and Practice of Logic Programming

Published for the Association for Logic programming

Editor-in-Chief

I Niemelä, *Helsinki University of Technology, Finland*

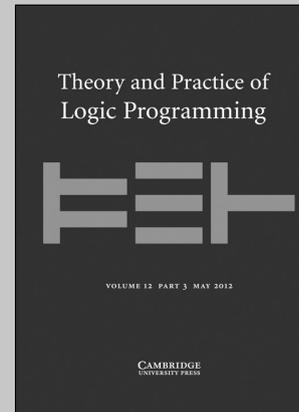
Theory and Practice of Logic Programming emphasises both the theory and practice of logic programming. Logic programming applies to all areas of artificial intelligence and computer science and is fundamental to them. Among the topics covered are AI applications that use logic programming, logic programming 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.

Price information

is available at: <http://journals.cambridge.org/tlp>

Free email alerts

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



Theory and Practice of Logic Programming

is available online at:

<http://journals.cambridge.org/tlp>

To subscribe contact Customer Services

Americas:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

Email

subscriptions_newyork@cambridge.org

Rest of world:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

Email journals@cambridge.org

For free online content visit:
<http://journals.cambridge.org/tlp>



CAMBRIDGE
UNIVERSITY PRESS

Instructions for contributors

Robotica aims to be an outlet for publication of original papers of the highest quality in the field of Robotics and closely related areas. This includes: novel robotic mechanism and actuator design; robot kinematics, dynamics and control; computer vision; sensor fusion; teleoperation and haptic interfaces; robot motion planning; and artificial intelligence. In addition, papers that apply techniques from Robotics to other fields are also welcome. Examples include dynamics and control models applied to biological systems, the description of implementations of robots in factories, service and agricultural settings, and general mechatronic design. Works may be theoretical, computational or experimental, or some combination. Both short papers (rapid communications), and longer archival papers are welcome. Proposals for special issues on topics of current interest are welcome, and can be submitted via email to the editor.

Authors are urged to ensure that their papers are written clearly and attractively, in order that their work will be readily accessible to readers. Manuscripts must be written in English. *Robotica* employs a rigorous peer-review process whereby all submitted manuscripts are sent to recognized experts in their subjects for evaluation. The Editor's decision on the suitability of a manuscript for publication is final. Manuscripts, whether accepted or rejected, will not be returned to authors.

Submission of manuscripts

Manuscripts for consideration by *Robotica* should be submitted electronically, using the Manuscript Central System, via <http://mc.manuscriptcentral.com/cup/robotica>. This system will allow authors to benefit from faster review and earlier, online publication. The system will accept PDF files; most other files types will be automatically converted directly into PDF. Source files are required for any paper accepted for publication. Authors who are unable to submit online should contact the Editorial Office (gregc@jhu.edu) for assistance.

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. Upon acceptance of a paper, the author will be asked to transfer copyright to the publisher. Authors are responsible for obtaining written permission from the copyright owners to reprint any previously published material included in their article.

Layout of manuscripts

Text should be double spaced throughout, on one side of the paper, allowing generous margins on all sides of the paper. Please avoid footnotes if possible. Papers should begin with an abstract of not more than 100 words and should end with a brief concluding section. The title and section headings should be concise and descriptive. All measurements should be given in SI units. On acceptance of a manuscript, authors are asked to send the electronic source file of the final version together with a PDF copy produced using the same file. The publisher reserves the right to typeset material by conventional means if an author's file proves unsatisfactory.

Illustrations

Figures should be composed to occupy a single column (80mm) or two columns (166mm) after reduction. The preferred format for figure files is .eps or .tiff at resolution 1200 dpi for lines, 600 dpi for greyscale and 300 dpi for colour (which preferably should also be in CMYK – cyan magenta yellow black – format). However,

most standard image formats such as pct, ppm, png, psd, Word, ppt, CorelDraw, ChemDraw, AutoCAD can also be used, but not customized output of software not designed for publishing purposes such as Matlab, nor PDF. Figures to be printed in black and white must be submitted as black and white files.

Figures should be numbered consecutively, with Arabic numerals, have descriptive captions, and be mentioned in the text. A list of captions should be attached separately, and as far as possible, information relating to a figure should be placed in the caption rather than on the figure. Each figure should be clearly numbered. Photographs should be the same size as they will appear in the journal and should be selected to fit neatly into one column (80 mm) or two columns (166 mm). Photographs should be clearly identified and numbered as for line drawings.

Tables

Tables should be presented on separate sheets. A descriptive title should be given to each table. If possible, very wide tables should be avoided. Tables should be numbered consecutively in Roman numerals. Exceptionally lengthy tables may be summarized for publication with a note that fuller details can be obtained from the authors.

Equations

Mathematical equations should be typewritten, with subscripts and superscripts clearly indicated. All mathematical symbols will be set in italics unless otherwise indicated: symbols or letters to be set in Roman (upright) type should be marked clearly.

References

In the text, references are indicated by superior Arabic numbers (without brackets), and should be confined to published work that is directly pertinent. References should be listed at the end of the paper in numerical order. Authors' initials should precede their names: cited article titles should be quoted in full, enclosed in quotation marks; and abbreviations of journal names should follow the style of Chemical Abstracts or Physical Abstracts, and be underlined for italics:

P.W. Anderson, "More is different" *Science* **177**, 393-399 (1972);
C.V. Negoita, *Fuzzy Systems* (Abacus Press. Tunbridge Wells, UK, 1980).

Citations such as 'personal communication', 'unpublished work', etc., are not acceptable as numbered references but can be included in parenthesis in the text. Do not use summaries as references.

Proof Reading

The corresponding author will receive PDF copies of page proofs for final proofreading. Only typographical or factual errors may be changed at proof stage. The publisher reserves the right to charge authors for correction of non-typographical errors. Authors are requested to return proofs within 48 hours by airmail. No page charge is made.

Offprints

No paper offprints are provided, but the corresponding author will be sent the pdf of the published article. Print offprints may be purchased at extra cost at proof stage.

© CAMBRIDGE UNIVERSITY PRESS 2012

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
Ruiz de Alarcón 13, 28014, Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

Printed in the UK by MPG Books Ltd

ROBOTICA

Volume 30 Part 7 December 2012

- Optimal design of 6-DOF eclipse mechanism based on task-oriented workspace,
Donghun Lee, Jongwon Kim and TaeWon Seo 1041
- Optimal design of 6-DOF eclipse mechanism based on task-oriented workspace –
ADDENDUM, **Donghun Lee, Jongwon Kim and TaeWon Seo** 1049
- A double refresh rate sonar ring with FPGA-based continuous matched filtering,
Damien C. Browne and Lindsay Kleeman 1051
- Range-only fuzzy Voronoi-enhanced localization of mobile robots in wireless
sensor networks, **D. Herrero and H. Martínez** 1063
- Engineering observation of lateral undulation in colubrid snakes for wheel-less
locomotion, **Farshad Barazandeh, Hossein Rahnamafard, Mehdi Rajabizadeh
and Hossein Faraji** 1079
- Kinematic modelling of a 5-DOF hybrid parallel robot for laparoscopic surgery,
Doina Pisla, Bogdan Gherman, Calin Vaida and Nicolae Plitea 1095
- Singularity analysis of the H4 robot using Grassmann–Cayley algebra,
Semaan Amine, Stéphane Caro, Philippe Wenger and Daniel Kanaan 1109
- From stable walking to steering of a 3D bipedal robot with passive point feet,
Ching-Long Shih, J. W. Grizzle and Christine Chevallereau 1119
- Process of optimisation for a 4 DOF tele-echography robot, **L. Nouaille,
P. Vieyres and G. Poisson** 1131
- Kinematic analysis of a 5-DOF hybrid-driven MR compatible robot for minimally
invasive prostatic interventions, **Shan Jiang, Jie Guo, Shen Liu, Jun Liu
and Jun Yang** 1147
- Robust detection and isolation of failures in satellite attitude sensors and gyro,
Bahar Ahmadi and Mehrzad Namvar 1157
- Modeling and assessment of the backlash error of an industrial robot,
Mohamed Slamani, Albert Nubiola and Ilian A. Bonev 1167
- A stable adaptive force/position controller for a C5 parallel robot:
a neural network approach, **B. Achili, B. Daachi, Y. Amirat, A. Ali-Cherif
and M. E. Daâchi** 1177
- Vodec: A fast Voronoi algorithm for car-like robot path planning in dynamic
scenarios, **Diego A. López García and Fernando Gomez-Bravo** 1189
- Visual servoing applied to real-time stabilization of a multi-rotor UAV,
Hugo Romero, Sergio Salazar and Rogelio Lozano 1203
- Optimization design for a jumping leg robot based on generalized inertia ellipsoid,
Jianjun Yao, Qi Yang, Shuang Gao and Shenghai Hu 1213

Robotica now accepts submissions via Manuscript Central
Go to <http://mc.manuscriptcentral.com/cup/robotica>

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



MIX
Paper from
responsible sources
FSC® C018575

CAMBRIDGE
UNIVERSITY PRESS