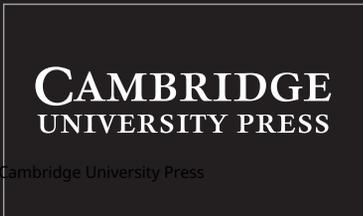


JOURNAL OF  
*Functional Programming*

VOLUME 19 PART 6 NOVEMBER 2009



CAMBRIDGE  
UNIVERSITY PRESS

**EDITORS-IN-CHIEF**

**Matthias Felleisen**, College of Computer Science, Northeastern University, Boston, Massachusetts 02115, USA, matthias@ccs.neu.edu [Education Editor]

**Xavier Leroy**, INRIA Rocquencourt, Domaine de Voluceau, B.P. 105, 78153 Le Chesnay, France. Xavier.Leroy@inria.fr

**EDITORS**

**Richard S. Bird**, Oxford University Computing Laboratory, Programming Research Group, 8-11 Keble Road, Oxford OX1 3QD, UK, bird@comlab.ox.ac.uk [Functional Pearls Editor]

**Kathleen Fisher**, AT & T One River Oaks, San Jose, CA 95134-1918, USA. kfisher@research.att.com [Commercial Uses Editor]

**Robert Harper**, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA 15213-3890, USA. rwh@cs.cmu.edu [Theoretical Pearls Editor]

**Shriram Krishnamurthi**, Computer Science Department, Box 1910, Brown University, Providence, RI 02912-1910, USA. sk+105@cs.brown.edu [Educational Editor]

**Eugenio Moggi**, Computer Science DISI, Univ. di Genova, Room 229, 2nd Floor via Dodecaneso 35, 16146 Genova, Italy. moggi@disi.unige.it

**Benjamin Pierce**, Department of Computer and Information Science, University of Pennsylvania, 200 South 33rd Street, Philadelphia, PA 19104-6389, USA. bcpierce@cis.upenn.edu

**Colin Runciman**, Department of Computer Science, University of York, York YO10 5DD, UK. colin.runciman@cs.york.ac.uk [Tools and Applications Editor]

**BOOK REVIEW EDITOR**

**Simon Thompson**, Computing Laboratory, University of Kent, Canterbury, Kent CT2 7NF, UK. s.j.thompson@ukc.ac.uk

**EDITORIAL BOARD**

**Andrew Adams-Moran**, Galois Connections Inc, Beaverton, OR 97005, USA. adams-moran@galois.com

**Lennart Augustsson**, Nilssonsberg 7, 411 43 Göteborg, Sweden, email: lennart.augustsson@gmail.com

**Manuel M. T. Chakravarty**, School of Computer Science and Engineering, The University of New South Wales, UNSW Sydney NSW 2052 Australia. chak@cse.unsw.edu.au

**Olivier Danvy**, BRICS, University of Aarhus, IT-parken, Aabogade 34, DK-8200, Aarhus N, Denmark. danvy@brics.dk

**Robert Findler**, Department of Computer Science, The University of Chicago, 1100 E. 58th Street, Chicago, IL 60637 USA. robby@cs.uchicago.edu

**Ralf Hinze**, Institut für Informatik III, Universität Bonn, Römerstr 164, D-53117 Bonn, Germany.

ralf@informatik.uni-bonn.de

**Paul Hudak**, Department of Computer Science, P.O. Box 208285, Yale University, New Haven, CT 06520, USA.

paul.hudak@yale.edu

**Mark P. Jones**, Department of Computer Science, Portland State University, P.O. Box 751, Portland, OR 97207-0751, USA. mpj@cs.pdx.edu

**Martin Odersky**, Department of Computer Science, Ecole Polytechnique, Federale de Lausanne, CH-1015 Lausanne, Switzerland. martin.odersky@epfl.ch

**Norman Ramsey**, Department of Computer Science, Halligan Hall, Tufts University, 161 College Ave, Medford, MA 02155, USA. cs.tufts.edu

**Dr Didier Rémy**, INRIA Rocquencourt, Domaine de Voluceau, P.P. 105, F-78153 Le Chesnay, France.

Didier.Remy@inria.fr

**Zhong Shao**, Department of Computer Science, Yale University, 51 Prospect Street, New Haven, CT 06520-8285, USA. shao-zhong@cs.yale.edu

**Eijiro Sumii**, Graduate School of Information Science, Tohoku University, Aramaki aza Aoba 6-3-09, Aoba-ku, Sendai-city, Miyagi-prefecture, 980-8579, Japan, email: sumii@ecei.tohoku.ac.jp

**Stephanie Weirich**, University of Pennsylvania, School of Engineering and Applied Science, Department of Computer and Information Science, Levine Hall, 3330 Walnut Street, Philadelphia, PA 19104-6389, USA, email: sweirich@cis.upenn.edu

**INTERNET ACCESS**

The JFP web site contains details of all papers published to date, information for authors, and other supplementary material at [journals.cambridge.org/jfp](http://journals.cambridge.org/jfp)

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see [www.fsc.org](http://www.fsc.org) for information.