# Call for Papers

# ICFP 2004: International Conference on Functional Programming

**SnowBird, Utah, 19–22 September 2004**


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**Conference Chair**
Chris Okasaki
*U.S. Military Academy, West Point*

**Important Dates**
Submission:
23:00 01 Apr 2004, Apia, Samoa time (AST)
Author review:
23:00 17 May to 23:00 19 May 2004 (AST)
Notification . . . . . 26 May 2004
Final papers due . . . . . 07 July 2004

**Web Site**
ICFP 2004:
http://www.cs.indiana.edu/icfp04/

**Scope:** ICFP 2004 seeks original papers on the full spectrum of the art, science, and practice of functional programming. The conference invites submissions on all topics ranging from principles to practice, from foundations to features, and from abstraction to application. The scope covers all languages that encourage functional programming, including both purely applicative and imperative languages, as well as languages that support objects and concurrency. Topics of interest include, but are not limited to, the following:

- *Foundations:* Formal semantics, $\lambda$ calculus, type theory, monads, continuations, control, state, effects.
- *Design:* Algorithms and data structures, modules and type systems, concurrency and distribution, components and composition, relations to object-oriented and logic programming, multiparadigm programming.
- *Implementation:* Abstract machines, compile-time and run-time optimization, just-in-time compilers, memory management. Interfaces to foreign functions, services, components and low-level machine resources.
- *Transformation and Analysis:* Abstract interpretation, partial evaluation, program transformation, theorem proving, specification and verification.
- *Software development techniques for functional programming:* Design patterns, specification, verification and validation, debugging, test generation, tracing and profiling.
- *Applications and domain-specific languages:* Systems programming, scientific and numerical computing, symbolic computing and artificial intelligence, systems programming, databases, graphical user interfaces, multimedia programming, application scripting, system administration, distributed-systems construction, web programming, XML and related languages.
- *Practice and experience:* Functional programming in education and industry, ramifications on other paradigms and computing disciplines.
- *Functional pearls:* Elegant, instructive examples of functional programming.

Papers in the latter three categories need not necessarily report original research results; they may instead, for example, report practical experience that will be useful to others, re-usable programming idioms, or elegant new ways of approaching a problem. The key criterion for such a paper is that it makes a contribution from which other practitioners can benefit. It is not enough simply to describe a program!

**Submission guidelines:** Authors should submit a 100–200 word abstract and a *full paper* by 23:00 Apia, Samoan time on Thursday, 1 April, 2004. Conversions to other time zones may be found on the conference web site. Submissions should be *no more than 12 pages* (including bibliography) in standard ACM conference format: two columns, nine point font on ten point baseline, page 20pc (3.33in) wide and 54pc (9in) tall with a column gutter of 2pc (0.33in). Suitable style files can be found on the conference Web site. Authors wishing to supply additional material beyond the 12-page limit can do so in clearly marked appendices, on the understanding that reviewers are not required to read the appendices. Submissions that do not conform to these specifications will not be considered. The submission deadline and length limitations are firm.

Submissions will be carried out electronically via the Web, at the URL given in the left column. Papers must be submitted in PDF format or as PostScript documents that are interpretable by Ghostscript. They must be printable on US Letter sized paper. Individuals for which this requirement is a hardship should contact the program chair at least one week before the deadline.

Submitted papers must adhere to SIGPLAN's republication policy (http:www.acm.org/sigplan/republicationpolicy.htm). Each paper should explain its contributions in both general and technical terms, clearly identifying what has been accomplished, explaining why it is significant, and comparing it with previous work. Authors should strive to make the technical content of their papers understandable to a broad audience.

Authors will be given a 48-hour period (23:00 17 May to 23:00 19 May 2004 Apia, Samoa time) to read and respond to the reviews for their papers before the PC meeting. See the conference web site for more details.

Authors of accepted papers will be required to sign the ACM copyright form. Proceedings will be published by ACM Press.

**Special Issue of JFP:** The top submitted papers, as determined by the program committee, will be invited to submit journal versions for a special issue of JFP.