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Implementation of Functional Languages

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Preface

The International Workshops on the Implementation of Functional Languages (IFL) have been running for 14 years now. The aim of these workshops is to bring together researchers actively engaged in the implementation and application of functional programming languages to discuss new results and new directions of research. A non-exhaustive list of topics includes: language concepts, type checking, compilation techniques, (abstract) interpretation, automatic program generation, (abstract) machine architectures, array processing, concurrent/parallel programming and program execution, heap management, runtime profiling and performance measurements, debugging and tracing, verification of functional programs, tools and programming techniques.

The 14th edition, IFL 2002, was held in Madrid, Spain in September 2002. It attracted 47 researchers from the functional programming community, belonging to 10 different countries. During the three days of the workshop, 34 contributions were presented, covering most of the topics mentioned above.

The workshop was sponsored by several Spanish public institutions: the Ministry of Science and Technology, Universidad Complutense de Madrid, and the Tourism Office, Town Hall and Province Council of Segovia, a small Roman and medieval city near Madrid. We thank our sponsors for their generous contributions.

This volume follows the lead of the last six IFL workshops in publishing a high-quality subset of the contributions presented at the workshop in Springer's Lecture Notes in Computer Science series. All speakers attending the workshop were invited to submit a revised version for publication. A total of 25 papers were submitted. Each one was reviewed by four PC members and thoroughly discussed by the PC. The results of this process are the 15 papers included in this volume.

As a novelty this year, the PC awarded the best of the selected papers with the *Peter Landin Award*. This prize is being funded with the royalties, generously contributed by the authors, of the book *Research Directions in Parallel Functional Programming*, K. Hammond and G.J. Michaelson (eds.), Springer-Verlag, 1999. The prize is expected to run for the next few years and will surely be an added feature of future IFL workshops. The name of the winner of each edition will be published in the final proceedings. This year the awarded paper was *Towards a Strongly Typed Functional Operating System* by Arjen van Weelden and Rinus Plasmeijer. Congratulations to the authors.

The overall balance of the papers is representative, both in scope and technical substance, of the contributions made to the Madrid workshop, as well as to those that preceded it. Publication in the LNCS series is not only intended to make these contributions more widely known in the computer science community, but also to encourage researchers in the field to participate in future workshops. The next IFL will be held in Edinburgh, UK, during September 8–10, 2003 (for details see the page <http://www.macs.hw.ac.uk/~ifl03>).

This year we are saddened by the death of a beloved researcher in our community, Tony Davie, who passed away in January 2003. He was a long-standing contributor to the success of IFL through his knowledge, experience, and general support. He will be greatly missed by our community. We would like to remember him in the way he would have wished:

There was an FPer called Tony
whose persistence was not at all phony.
His limericks fine
made an excellent line
at dinners with mucho calzone.

We would like to thank the program committee, the referees, the authors, and the local organizing committee for the work and time that they devoted to this edition of IFL.

March 2003

Ricardo Peña
Thomas Arts

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