

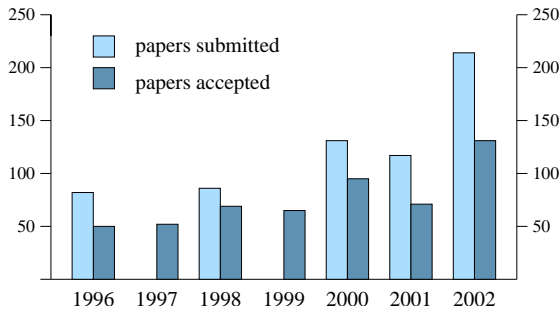
Preface

This book is the proceedings volume of the 12th International Conference on Field-Programmable Logic and Applications (FPL) held on September 2–4, 2002. The conference was hosted by the Laboratoire d’Informatique, de Robotique et de Microélectronique de Montpellier (LIRMM), France. The FPL conference covered areas like reconfigurable logic and reconfigurable computing, as well as their application in various areas like DSP, communication and cryptography. Its subtitle “Reconfigurable Computing Is Going Mainstream” emphasizes the extensive role reconfigurable logic has started to play.

The annual FPL series is the oldest international conference in the world covering configware and all its aspects (also see: <http://www.fpl.org>). It was founded in 1991 at Oxford University (UK) and is two years older than its two most important competitors, which usually take place in Monterey and Napa. FPL has been held in Oxford (three times), Vienna, Prague, Darmstadt, London, Tallinn, Glasgow, Villach, and Belfast. It brings together experts, users, and newcomers from industry and academia in an informal, social, and productive atmosphere that encourages stimulating and profitable interaction between the participants.

Covered topics. The scope of this conference has been substantially extended over the past years and today also covers evolvable and adaptable systems, coarse-grain reconfigurable (sub)systems, their synthesis methods and applications, and their indispensable role in System-on-a-Chip (SoC) development, as well as reconfigurable computing (RC) as an emerging new paradigm, threatening to shake the general foundations of computer science: computing in space vs. computing in time. The application of field-programmable logic in different areas has gained increasing importance also, and the number of according submissions has grown.

Still growing importance. The size of FPL conferences has grown rapidly from 1991 to 2001. The figure below shows the numbers of submitted and accepted papers, starting in 1996. The 214 papers submitted in 2002 represent



Numbers of submitted and accepted papers by year

an 83% increase compared to the year 2001. The program was assembled from 104 selected regular papers and 27 posters, resulting in a very interesting and attractive book. Another four papers are invited, including three keynotes. Because of the huge number of accepted contributions, this year for the first time the FPL program consisted of three parallel sessions. The selected contributions were submitted by researchers from 26 different countries:

USA:	30	Canada:	5	Ireland:	2	Lebanon:	1
UK:	15	Poland:	5	Portugal:	2	Mexico:	1
Germany:	12	Hong Kong:	4	Slovakia:	2	New Zealand:	1
Japan:	11	The Netherlands:	4	Australia:	1	Switzerland:	1
Spain:	9	Belgium:	3	Brazil:	1	Singapore:	1
France:	6	Czech Republic:	3	Greece:	1		
Italy:	6	Finland:	3	Iran:	1		

We gratefully acknowledge the reviewing work done by the PC members and many additional reviewers who contributed with their expertise to successfully compile the program.

Trends at FPL 2002. The main focus, set by the number of papers, was on the use of field-programmable logic for applications, mainly in the area of DSP (3 sessions), but also in various other areas (7 sessions, including two about arithmetic and two about cryptography). The use of field-programmable logic for communication applications (2 sessions) has been a sustaining field of interest. Reconfiguration and reconfigurable computing remain major points of interest, and are covered by 7 sessions ranging from custom computing engines to reconfigurable processors and issues of dynamic reconfiguration. Finally, low-power issues are receiving growing attention which is reflected in a new session dedicated to that topic.

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