Preface

This volume contains contributed papers from participants in the Generic Programming Seminar held 27 April – 1 May 1998 at the Dagstuhl Conference Center in Wadern, Germany.

Generic programming is a sub-discipline of computer science that deals with finding abstract representations of efficient algorithms, data structures, and other software concepts, and with their systematic organization. The goal of generic programming is to express algorithms and data structures in a broadly adaptable, interoperable form that allows their direct use in software construction. Among the most obvious achievements of this relatively new programming paradigm are new libraries of software components, both in areas of fundamental and broadly used algorithms and data structures – the Standard Template Library – and in more specialized areas such as computer algebra, graph theory, and computational geometry. As useful as such components may be, however, they are probably less important than the overall generic programming methodology being developed. The papers collected here are reports from the field on the major problems and emerging solutions of generic programming methodology.

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Mehdi Jazayeri
Rüdiger Loos
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Organization

The Generic Programming Seminar was held 27 April – 1 May 1998 at the Conference Center of the Schloß Dagstuhl, located in Wadern, Germany (near Saarbrücken). There were forty nine attendees from ten countries. The formal program of the meeting included thirty seven lectures, a panel session on software library standardization, and a discussion of open problems and projects. Many informal discussions also took place, one of the many benefits of the Dagstuhl setting. The traditional Dagstuhl social event was at this meeting a Baroque concert held in the chapel of the Schloß.

Organizers

Mehdi Jazayeri	Technical University of Vienna
Rüdiger Loos	Tübingen University
David Musser	Rensselaer Polytechnic Institute
Alexander Stepanov	SGI

Attendees

David Abrahams	Mark of the Unicorn, Inc.
Giuseppe Attardi	University of Pisa
Matt Austern	SGI
Ulrich Breymann	Hochschule Bremen
Stephen Cerniglia	Rensselaer Polytechnic Institute
George Collins	University of Delaware
James Crotinger	Los Alamos National Lab
Krzysztof Czarnecki	Daimler-Benz
James Dehnert	SGI
Angel Diaz	IBM Watson Research Center
Axel Dold	Ulm University
Matthew Dwyer	Kansas State University
Ulrich Eisenecker	Fachhochschule Heidelberg
Holger Gast	Tübingen University
Robert Glück	Copenhagen University
Friedrich von Henke	University of Ulm
Hoon Hong	North Carolina State University
Mehdi Jazayeri	Technical University of Vienna
Johann Jeuring	Utrecht University
Nicolai Josuttis	Bredex
Erich Kaltofen	North Carolina State
Ullrich Köthe	Rostock University

Uwe Kreppel	Tübingen University
Wolfgang Küchlin	Tübingen University
Dietmar Kühl	Konstanz University
Gary Leavens	Iowa State University
Karl Lieberherr	Northeastern University
Rüdiger Loos	Tübingen University
Kurt Mehlhorn	MPI, Saarbrücken University
David Musser	Rensselaer Polytechnic Institute
Stefan Näher	Halle University
Oscar Nierstrasz	Bern University
Martin Odersky	University of South Australia
William Ogden	Ohio State University
Arturo Sanchez-Ruiz	University of Central Venezuela
Stefan Schirra	Saarbrücken University
Wolfgang Schreiner	RISC-Linz
Sibylle Schupp	Rensselaer Polytechnic Institute
Christoph Schwarzweller	Tübingen University
Murali Sitaraman	W. Virginia University
Georg Trausmuth	Technical University of Vienna
David Vandevoorde	Hewlett-Packard
Todd Veldhuizen	University of Waterloo
Bruce Weide	Ohio State University
Karsten Weihe	Konstanz University
Roland Weiss	Tübingen University
Reinhard Wilhelm	Saarbrücken University
Alexandre Zamulin	Russian Academy of Sciences, Novosibirsk
Wolf Zimmermann	Karlsruhe University