

# Lecture Notes in Computer Science

Edited by G. Goos and J. Hartmanis

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F. Pichler R. Moreno-Diaz (Eds.)

## Computer Aided Systems Theory – EUROCAST '89

A selection of papers from the International Workshop  
EUROCAST '89, Las Palmas, Spain  
February 26 – March 4, 1989  
Proceedings

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Springer-Verlag

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CR Subject Classification (1987): H.1, I.6, J.6

ISBN 3-540-52215-8 Springer-Verlag Berlin Heidelberg New York  
ISBN 0-387-52215-8 Springer-Verlag New York Berlin Heidelberg

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Printed in Germany

Printing and binding: Druckhaus Beltz, Hemsbach/Bergstr.  
2145/3140-543210 – Printed on acid-free paper

## Preface

The papers published in this volume present the current stage in the development of Computer Aided Systems Theory (CAST) as seen from the standpoint of systems theory. CAST in the style pursued here has only recently been made feasible: the new generation of workstations together with the methods and tools offered by Artificial Intelligence today allow the implementation of powerful user-driven interactive systems as required for CAST. On the other hand, due to the current tendency to enhance CAD software by theory-based methods for the early phases of design, CAST is urgently needed for CAD Software design. The implementation of CAST software requires many skills: it is rather evident that systems theory itself has to offer a sound methodology suited for implementation. Secondly, the user functions have to be tailored to the specific classes of applications. And thirdly, the man-machine interface has to be designed using the most up-to-date results from cognition research and the field of artificial intelligence.

Most of the papers presented here are written versions of talks delivered at the European Workshop on Computer Aided Systems Theory, EUROCAST '89, organized by the Universidad de Las Palmas de Gran Canaria, February 26 - March 4, 1989. Four papers originated in the CAST Workshop '88, organized by the University of Linz, April 11-13, 1988.

The editors are grateful to the authors for their willingness to contribute to this volume. Special thanks of the editors go to Werner Schimanovich, University of Vienna. His engagement and assistance was indispensable for the organization of the Las Palmas workshop.

Furthermore, the editors would like to thank Professor Heinz Schwärtzel, Siemens Corporation Munich, Vice President of the German Society for Computer Science, and Professor Gerhard Goos, University of Karlsruhe, Editor of the Lecture Notes in Computer Science, for their cooperation and for their interest in CAST research. A final word of thanks is given to the Springer-Verlag staff in Heidelberg for their help in publishing the volume.



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