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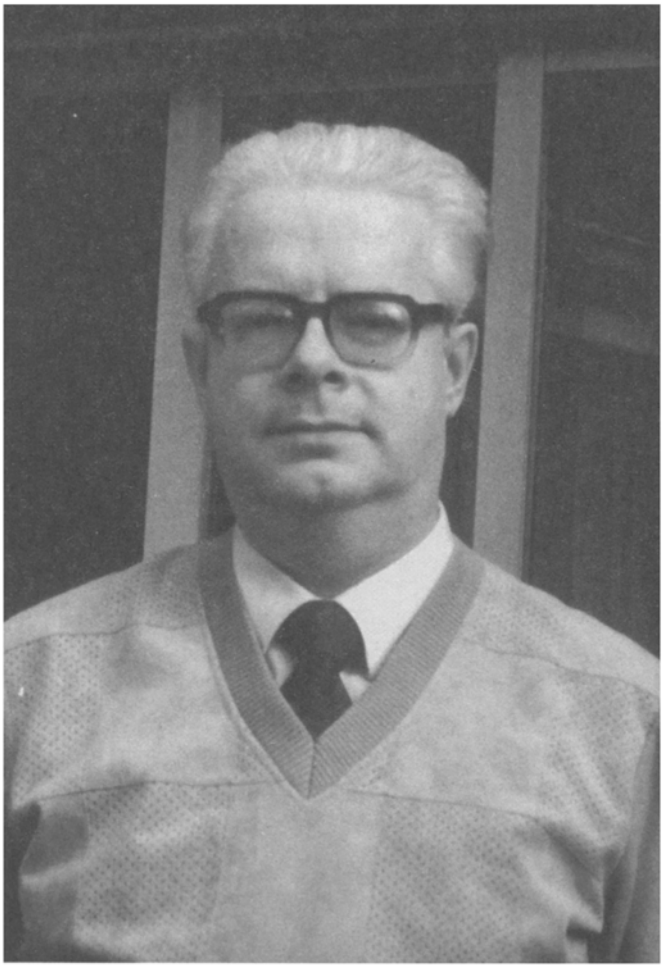
In Memory of Dieter Rödding

24.8.1937 - 4.6.1984

On the occasion of the 50th anniversary of his birth



PREFACE

Dieter Rödding was born in Hattingen/Ruhr on August 24, 1937 and died in Münster, West Germany, on June 4, 1984. He received his Doctorate and his Habilitation from the University of Münster and in 1966, at the age of 29, became the successor of H.Hermes in the Chair of Mathematical Logic and as Director of the Logic Institute there.

Dieter Rödding became known in the 1960s for his work on the classification of recursive functions, on reduction classes, on the spectrum problem and on the complexity of cardinality quantifiers in predicate logic and in arithmetical hierarchy. Influenced by the approach to logic of H. Hasenjaeger and H. Hermes, Dieter Rödding was one of the first to pursue a computational approach to logic and complexity. In the 1970s he developed a logical analysis of construction principles for automata from which a modular decomposition theory of automata emerged which has found applications in logic, computer science and systems theory.*

As the editor, I have tried to reflect in this volume the wide spectrum of Dieter Rödding's scientific interests. They range from traditional themes of mathematical logic to automata theory, complexity theory, and recent applications of logic in computer science and systems theory, including as well logic analysis of epistemological problems or problems of didactics. As early as the beginning of the 1970s Dieter Rödding insisted very much on the interaction of logic and computer science. This explains the preponderance of this theme in the book.

I here express my warm thanks to all colleagues who contributed their papers in memory of Dieter Rödding .

Pisa, May 1987 Egon Börger

* A more detailed description of Dieter Rödding's scientific work will appear in Number 1987/3 of the "Jahresbericht der Deutschen Mathematiker-Vereinigung".

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