

# ISNM

INTERNATIONAL SERIES OF NUMERICAL MATHEMATICS  
INTERNATIONALE SCHRIFTENREIHE ZUR NUMERISCHEN MATHEMATIK  
SERIE INTERNATIONALE D'ANALYSE NUMERIQUE

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Vol. 48

# Constructive Methods for Nonlinear Boundary Value Problems and Nonlinear Oscillations

Conference at the Oberwolfach Mathematical Research  
Institute, Black Forest,  
November 19–25, 1978

Edited by  
J. Albrecht, Clausthal, L. Collatz, Hamburg, K. Kirchgässner, Stuttgart

1979  
SPRINGER BASEL AG

**CIP-Kurztitelaufnahme der Deutschen Bibliothek**

**Constructive methods for nonlinear boundary value problems and nonlinear oscillations:**  
conference at the Oberwolfach Mathemat. Research  
Inst., Black Forest, November 19–25, 1978/  
ed. by J. Albrecht ... - Basel, Boston, Stuttgart:  
Birkhäuser, 1979.

(International series of numerical  
mathematics; Vol.48)

ISBN 978-3-7643-1098-1

NE: Albrecht, Julius [Hrsg.]; Mathematisches  
Forschungsinstitut (Oberwolfach)

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Originally published by Birkhäuser Verlag Basel in 1979

ISBN 978-3-7643-1098-1

ISBN 978-3-0348-6283-7 (eBook)

DOI 10.1007/978-3-0348-6283-7

## PREFACE

The conference 'Constructive Methods for Nonlinear Boundary Value Problems and Nonlinear Oscillations' (Konstruktive Methoden bei nichtlinearen Randwertaufgaben und nichtlinearen Schwingungen), organized by the editors of this proceedings volume, took place at the Mathematischen Forschungsinstitut Oberwolfach from November 19–25, 1978.

The main theme of the conference was analytical and numerical procedures for the solution of nonlinear boundary value problems, whereby emphasis was placed on branching problems and their application to nonlinear oscillations. Some problems treated were: Nonlinear wave propagation, nonlinear boundary value problems for the determination of plasma flows and their numerical treatment, numerical procedures for the solution of secondary bifurcation problems, solution of oscillation equations of a chain with a 'hard theorem' on implicit functions.

The response was particularly large, the participants numbering almost beyond the capacity of the Oberwolfach Institute and the varied possibilities for meetings which the Oberwolfach Institute offers were used to the benefit of this conference. We would particularly like to thank the director of the Institute, Professor Dr. Barner, and Birkhäuser Verlag for the cooperation in the production of this book.

J. Albrecht  
Clausthal

L. Collatz  
Hamburg

K. Kirchgässner  
Stuttgart

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