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Constructive Methods for the Practical Treatment of Integral Equations

**Proceedings of the Conference at the
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Edited by

**G. Hämmerlin and
K.-H. Hoffmann**

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P r e f a c e

Among the numerous problems arising in the field of constructive methods for the practical treatment of integral equations, several focal points can be made out. They are also reflected in this collection of 23 papers presented at the conference.

First of all, we mention the numerical treatment of integral equations of the Volterra type, weakly singular kernels and stability questions being in the foreground; weakly singular Fredholm equations are treated as well. Further, there is great interest in collocation and Galerkin methods, in particular in using splines to produce approximate solutions. Several papers are devoted to nonlinear integral equations and to their applications, for instance in scattering theory. Integral equations of the first kind and the investigation of regularization methods represent a connection with improperly posed problems, the latter being of particularly actual importance.

The editors' thanks go to all contributors and participants who made the conference a success; to the management of the Oberwolfach Institute with its unique atmosphere; to the Birkhäuser Verlag for the possibility to publish the volume in the well-known ISNM series and to the co-workers of the editors for their assistance in organisation and editorial work.

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C O N T E N T S

List of participants.....	9
G. Akrivis:	
Die Fehlernorm spezieller Gauss-Quadraturformeln.	13
K.E. Atkinson:	
Solving integral equations on surfaces in space..	20
H. Arndt:	
An adaptive step size control for Volterra integral equations.....	44
C.T.H. Baker:	
Concerning $A(\alpha)$ -stable mixed Volterra Runge- Kutta methods.....	53
M. Brannigan:	
Constrained approximation techniques for solving integral equations.....	68
H. Brunner:	
On the numerical solution by collocation of Volterra integrodifferential equations with nonsmooth solutions.....	74
L. Collatz:	
Inclusion of regular and singular solutions of certain types of integral equations.....	93
D. Colton:	
Two methods for solving the inverse scattering problem for time-harmonic acoustic waves.....	103
P.P.B. Eggermont:	
Beyond superconvergence of collocation methods for Volterra integral equations of the first kind....	110
H.W. Engl and A. Neubauer:	
Optimal discrepancy principles for the Tikhonov re- gularization of integral equations of the first kind	120
D. Eyre and M. Brannigan:	
Spline-Galerkin method for solving some quantum mechanic integral equations.....	142

Th. Fawzy:		
Integral treatment of O.D.E with splines.....		150
I.G. Graham and C. Schneider:		
Product integration for weakly singular integral equations in \mathbb{R}^m		156
P.J. van der Houwen and J.G. Blom:		
Stability results for discrete Volterra equations: Numerical experiments.....		166
D. Kershaw:		
The design of acoustic torpedos.....		179
R. Kress:		
On the condition number of boundary integral equations in acoustic scattering using combined double- and single-layer potentials.....		194
F. Kuhnert and R. Haftmann:		
Numerical solution of singular integral equations and an application to the theory of jet-flapped wings.....		201
A.K. Louis:		
Tikhonov-Phillips regularization of the Radon transform.....		211
H.J.J. te Riele and R.W. Wagenaar:		
Numerical solution of a first kind Fredholm inte- gral equation arising in electron-atom scattering		224
E. Schock:		
Approximate solution of ill-posed equations: Arbi- trarily slow convergence vs. superconvergence....		234
J.A. Scott:		
A unified analysis of discretization methods for Volterra-type equations.....		244
I.H. Sloan and A. Spence:		
Wiener-Hopf integral equations: Finite section approximation and projection methods.....		256
S. Vessella:		
Stability results for Abel equation.....		273
Problems.....		281

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