Contents

In: Jiří Fábera (ed.): Equadiff IV, Czechoslovak Conference on Differential Equations and Their Applications. Proceedings, Prague, August 22-26, 1977. Springer-Verlag, Berlin, 1979. Lecture Notes in Mathematics, 703. pp. [XVII]--XIX.

Persistent URL: http://dml.cz/dmlcz/702195

Terms of use:

© Springer-Verlag, 1979

Institute of Mathematics of the Academy of Sciences of the Czech Republic provides access to digitized documents strictly for personal use. Each copy of any part of this document must contain these *Terms of use*.



This paper has been digitized, optimized for electronic delivery and stamped with digital signature within the project *DML-CZ: The Czech Digital Mathematics Library* http://project.dml.cz

CONTENTS

Amann, H.: Invariant sets for semilinear parabolic and elliptic systems	ı
Axelsson, 0.: On the numerical solution of nonlinear partial differential equations on divergence form	5
Bainov, D.D. and Milusheva, S.D.: Application of the aver- aging method for the solution of boundary problems for ordinary differential and integro-differential equations	16
Bebernes, J.W.: Solution set properties for some nonlinear parabolic differential equations	25
Bihari, I.: Asymptotic invariant sets of autonomous diffe- rential equations	31
Borůvka, O.: Algebraic methods in the theory of global pro- perties of the oscillatory equations Y"=Q(t)Y	35
Brilla, J.: Stability problems in mathematical theory of viscoelasticity	46
Capriz, G.: On the branching of solutions and Signorini's perturbation procedure in elasticity	54
Coddington, E.A.: Differential subspaces associated with pairs of ordinary differential operators	64
Conti, R.: Control and the Van der Pol equation	73
Descloux, J., Nassif, N. and Rappaz, J.: On properties of spectral approximations	81
Dragan, V. and Halanay, A.: Singular perturbations and linear feedback control	86
Dümmel, S.: On some inverse problems for partial differen- tial equations	93
Fučík, S.: Nonlinear noncoercive boundary value problems	99
Gajewski, H.: On the iterative solution of some nonlinear evolution equations	110
Gamkrelidze, R.: Exponential representation of solutions of ordinary differential equations	118
Hall, W.S.: The Rayleigh and Van der Pol wave equations, some generalizations	130
Hansen, W.: The Dirichlet problem	139
Hess, P.: Multiple solutions of some asymptotically linear elliptic boundary value problems	145
Hlaváček, I.: Dual finite element analysis for some unilateral boundary value problems	152
Il'in, V.: Gradient alternating-direction methods	160
Kačur, J.: Nonlinear parabolic boundary value problems with the time derivative in the boundary	3.000
conditions	170

Kamenskii, G.A. and Myshkis, A.D.: Variational and boundary value problems for differential equations with deviating argument	179
Klötzler, R.: On a general conception of duality in optimal control	189
Knobloch, H.W.: Boundary value problems for systems of nonlinear differential equations	197
Král, J.: Boundary behavior of potentials	205
Kufner, A.: Some modifications of Sobolev spaces and non-linear boundary value problems	213
Kyncl, J. and Marek, I.: Some problems in neutron transport theory	224
Ladyženskaja, O.A.: On formulation and solvability of boundary value problems for viscous incom- pressible fluids in domains with non-compact boundaries	233
Mawhin, J.: Boundary value problems at resonance for vector second order nonlinear ordinary differential equations	241
Maz'ya, V.G.: Behaviour of solutions to the Dirichlet problem for the biharmonic operator at a boundary point	250
Mika, J.: Asymptotic methods for singularly perturbed li- near differential equations in Banach spaces	263
Mosco, U.: Non-linear quasi variational inequalities and stochastic impulse control theory	271
Nečas, J.: On the regularity of weak solutions to variational equations and inequalities for nonlinear second order elliptic systems	286
Nedoma, J.: The solution of parabolic models by finite element space and A-stable time discretization	300
Neuman, F.: Global properties of the n th order linear differential equations	309
Nohel, J.A.: A forced quasilinear wave equation with dissipation	318
Oleinik, O.A.: Energetic estimates analogous to the Saint-Venant principle and their applications	328
Rabinowitz, P.H.: A priori bounds for a semilinear wave equation	340
Rektorys, K.: The method of least squares on the boundary and very weak solutions of the first biharmonic problem	348
Ryabov, Yu.: Application of bounded operators and Lyapunov's majorizing equations to the analysis of differential equations with a small parameter	356
Schwabik, Š. and Tvrdý, M.: On linear problems in the space BV	366
Seda, V.: A partially ordered space connected with the de la Vallée Poussin problem	374
Sova, M.: Abstract Cauchy problem	384
served were served our proprom	554

د

XVIII

Sultangazin, U.M.: Solution of symmetric positive systems of differential equations	39 7
Švec, M.: Some problems concerning the functional differential equations	405
Taufer, J. and Vitásek, E.: A-stability and numerical solution of abstract differential equations	415
Triebel, H.: Mapping properties of regular and strongly degenerate elliptic differential operators in the Besov spaces $B_{p,p}^{s}(\Omega)$.	
	424
Vrkoč, I.: A new definition and some modifications of Filippov cone	433