

*TABLE OF CONTENTS*

LIST OF PARTICIPANTS . . . . .	1
PREFACE . . . . .	3
ARONSON, D. G. and WEINBERGER, H. F.: Nonlinear Diffusion in Population Genetics, Combustion and Nerve Pulse Propagation . . . . .	5
BREZIS, Haïm: A New Method in the Study of Subsonic Flows . . . . .	50
BREZIS, Haïm: Interpolation Classes for Monotone Operators . . . . .	65
BROWDER, Felix E.: Singular Nonlinear Integral Equations of Hammerstein Type . . . . .	75
BROWDER, Felix E.: The Lefschetz Fixed Point Theorem and Asymptotic Fixed Point Theorems . .	96
COSTA, David G.: $L^p$ Decay Rates, $p$ Big ( $\leq \infty$ ), and Energy Decay in Nonbicharacteristic Cones for First Order Hyperbolic Systems . . . . .	123
DE FIGUEIREDO, Djairo Geddes: The Dirichlet Problem for Nonlinear Elliptic Equations: A Hilbert Space Approach . . . . .	144
FATTORINI, Hector O.: Exact Controllability of Linear Systems in Infinite Dimensional Spaces .	166
FOIAS, Ciprian: On the Statistical Study of the Navier-Stokes Equations . . . . .	184
GREENBERG, J. M.: Asymptotic Behavior of Solutions to the Quasilinear Wave Equation . . . . .	198

GRÜNBAUM, F. Alberto: Inverse Problems for Nonlinear Random Systems . . . . .	247
HERSH, Reuben: The Method of Transmutations . . .	264
HERSH, Reuben: Stochastic Solutions of Hyperbolic Equations . . . . .	283
LIONS, J. L.: Remarks on Some New Nonlinear Boundary Value Problems . . . . .	301
MEDEIROS, L. A.: Semilinear Wave Equations . . .	329
RAUCH, Jeffrey: Lecture # 1. Five Problems: An Introduction to the Qualitative Theory of Partial Differential Equations . . . . .	355
RAUCH, Jeffrey: Lecture # 2. The Mathematical Theory of Crushed Ice . . . . .	370
RAUCH, Jeffrey: Lecture # 3. Scattering by Many Tiny Obstacles . . . . .	380