

CONTENTS

Preface.....	v
--------------	---

Part I: Partial Differential Equations and Mathematical Physics

1. The (Non)continuity of Symmetric Decreasing Rearrangement.....	3
Frederick J. Almgren, Jr., and Elliott H. Lieb	
2. Counting Singularities in Liquid Crystals.....	17
Frederick J. Almgren, Jr., and Elliott H. Lieb	
3. Relaxed Energies for Harmonic Maps.....	37
F. Bethuel, H. Brezis, and J.M. Coron	
4. Topological Results on Fredholm Maps and Application to a Superlinear Differential Equation.....	53
Vittorio Cafagna	
5. Existence Results for Some Quasilinear Elliptic Equations..	61
Henrik Egnell	
6. A New Setting for Skyrme's Problem.....	77
Maria J. Esteban	
7. Relative Category and the Calculus of Variations.....	95
G. Fournier and M. Willem	
8. Point and Line Singularities in Liquid Crystals.....	105
Robert M. Hardt	
9. The Variety of Configurations of Static Liquid Crystals.....	115
Robert Hardt, David Kinderlehrer, and Fang Hua Lin	
10. Existence of Multiple Solutions of Semilinear Elliptic Equations in R^N	133
Yanyan Li	

11. Lagrange Multipliers, Morses Indices and Compactness.....	161
P.L. Lions	
12. Elliptic Equations with Critical Growth and Moser's Inequality.....	185
J.B. McLeod and L.A. Peletier	
13. Evolution Equations with Discontinuous Nonlinearities and Non-Convex Constraints.....	197
A. Marino and C. Saccon	
14. Nonlinear Variational Two-Point Boundary Value Problems.....	209
J. Mawhin	
15. Some Relative Isoperimetric Inequalities and Applications to Nonlinear Problems	219
Filomena Pacella	
Part II: Partial Differential Equations and Problems in Geometry	
16. Approximation in Sobolev Spaces Between Two Manifolds and Homotopy Groups.....	239
Fabrice Bethuel	
17. The "Magic" of Weitzenböck Formulas	251
Jean-Pierre Bourguignon	
18. A Remark on Minimal Surfaces with Corners	273
Michael Grüter	
19. Extremal Surfaces of Mixed Type in Minkowski Space \mathbf{R}^{n+1}	283
Gu Chaohao (C.H. Gu)	
20. Convergence of Minimal Submanifolds to a Singular Variety	297
Robert Gulliver	
21. Harmonic Diffeomorphisms Between Riemannian Manifolds	309
Frederic Helein	
22. Surfaces of Minimal Area Supported by a Given Body in \mathbf{R}^3	319
G. Mancini and R. Musina	

23. Calibrations and New Singularities in Area-Minimizing Surfaces: A Survey	329
Frank Morgan	
24. Harmonic Maps with Free Boundaries.....	343
Klaus Steffen	
25. Global Existence of Partial Regularity Results for the Evolution of Harmonic Maps.....	359
Michael Struwe	

Part III: Hamiltonian Systems

26. Multiple Periodic Trajectories in a Relativistic Gravitational Field.....	373
A. Ambrosetti and U. Bessi	
27. Periodic Solutions of Some Problems of 3-Body Type	383
Abbas Bahri and Paul H. Rabinowitz	
28. Periodic Solutions of Dissipative Dynamical Systems	395
Vieri Benci and Marco Degiovanni	
29. Periodic Trajectories for the Lorentz-Metric of a Static Gravitational Field.....	413
Vieri Benci and Donato Fortunato	
30. Morse Theory for Harmonic Maps	431
Kung-Ching Chang	
31. Morse Theory and Existence of Periodic Solutions of Elliptic Type	447
B. D'Onofrio and I. Ekeland	
32. Periodic Solutions of a Nonlinear Second Order System	455
L. Lassoued	
33. Existence of Multiple Brake Orbits for a Hamiltonian System	469
Andrzej Szulkin	