TABLE OF CONTENTS

Page

Alber, Hans Dieter:
On the existence in the large of solutions to the one-dimensional, isentropic hydrodynamic equations in a bounded domain 1

Alber, Hans Dieter & Leis, Rolf:
Initial boundary value and scattering problems in mathematical physics 23

Alt, Hans Wilhelm:
On shape optimization of a turbine blade 61

Bemelmans, Josef:
Free boundary problems for the Navier-Stokes equations 96

Dierkes, Ulrich:
A geometric maximum principle, Plateau's problem for surfaces of prescribed mean curvature, and the two dimensional analogue of the catenary 116

Dziuk, Gerhard:
Finite elements for the Beltrami operator on arbitrary surfaces 142

Finn, Robert:
Comparison principles in capillarity 156

Frehse, Jens:
Remarks on diagonal elliptic systems 198

Giaquinta, Mariano:
Quasiconvexity, growth conditions and partial regularity 211

Grüter, Michael:
The monotonicity formula in geometric measure theory, and an application to a partially free boundary problem 238

Gulliver, Robert:
Isoperimetric problems having continua of solutions 256

Jost, Jürgen:
Harmonic maps - analytic theory and geometric significance 264

Meier, Michael:
Asymptotic behavior of solutions of some quasilinear elliptic systems in exterior domains 297

Milani, Albert & Picard, Rainer:
Decomposition theorems and their application to non-linear electro- and magneto-static boundary value problems 317

Page

Racke, Reinhard:
Initial boundary value problems in thermoelasticity 341

Struwe, Michael:
Applications of variational methods to problems in the geometry of surfaces 359

Tromba, Anthony:
Open problems in the degree theory for disc minimal surfaces spanning a curve in $\mathbb{R}^3$ 379

Witsch, Karl-Josef:
On a modified version of the free geodetic boundary-value problem 402