

Contents

Preface	vii
List of Speakers and Titles of Their Talks	ix
List of Participants	xiii
An integrality theorem and a regularity theorem for surfaces whose first variation with respect to a parametric elliptic integrand is controlled WILLIAM K. ALLARD	1
Deformations and multiple-valued functions FREDERICK J. ALMGREN, JR.	29
Local estimates for minimal submanifolds in dimensions greater than two MICHAEL T. ANDERSON	131
Second variation estimates for minimal orbits JOHN E. BROTHERS	139
Index theory for operator ranges and geometric measure theory RICHARD W. CAREY and JOEL D. PINCUS	149
MACSYMA and minimal surfaces PAUL CONCUS and MARIO MIRANDA	163
Sur les chaînes maximalement complexes de bord donné PIERRE DOLBEAULT	171
Index and total curvature of complete minimal surfaces ROBERT GULLIVER	207
The structure of stable minimal hypersurfaces near a singularity ROBERT GULLIVER and H. BLAINE LAWSON, JR.	213
Some regularity results in plasticity ROBERT M. HARDT and DAVID KINDERLEHRER	239
Tangential regularity near the C^1 -boundary ROBERT M. HARDT and FANG-HUA LIN	245
Solving Plateau's problem for hypersurfaces without the compactness theorem for integral currents ROBERT M. HARDT and JON T. PITTS	255
Complex analytic geometry and measure theory F. REESE HARVEY and H. BLAINE LAWSON, JR.	261
Mean curvature contraction of convex hypersurfaces GERHARD HUISKEN	275

$C^{1,\alpha}$ multiple function regularity and tangent cone behaviour for varifolds with second fundamental form in L^p	JOHN E. HUTCHINSON	281
Pointwise pinched manifolds are space forms	CHRISTOPHE MARGERIN	307
The multiplicity of generic projections of n -dimensional surfaces in R^{n+k} ($n+k \leq 4$)	DANA NANCE	329
Deformation of Riemannian metrics and manifolds with bounded curvature ratios	SEIKI NISHIKAWA	343
A regularity condition at the boundary for weak solutions of some nonlinear elliptic systems	GEORGE PAULIK	353
Solutions to the Navier–Stokes inequality with singularities on a Cantor set	VLADIMIR SCHEFFER	359
Asymptotic behaviour of minimal submanifolds and harmonic maps	LEON SIMON	369
Complete catalog of minimizing embedded crystalline cones	JEAN E. TAYLOR	379
Liouville theorems for stable harmonic maps into either strongly unstable, or δ -pinched, manifolds	S. WALTER WEI	405
A regularity theorem for minimizing hypersurfaces modulo p	BRIAN WHITE	413
Regularity of quasi-minima and obstacle problems	WILLIAM P. ZIEMER	429
Some open problems in geometric measure theory and its applications suggested by participants of the 1984 AMS Summer Institute	JOHN E. BROTHERS, Editor	441