

TABLE DES MATIERES

Avant-Propos	vii
Foreword	ix
J.C. LEGRAND, Discours d'ouverture	xv
<u>Conférences plénières</u>	
A.M. ANILE, G. ALÍ, V. ROMANO, <i>Relativistic dissipative fluids</i>	1
H. BREZIS, <i>Mathematical problems related to liquid crystals, superconductors and superfluids</i>	11
J.D. BROWN, J.W. YORK Jr., <i>Microcanonical action and the entropy of a rotating black hole</i>	23
F. CAGNAC, M. DOSSA, <i>Problème de Cauchy sur un côneïde caractéristique. Applications à certains systèmes non linéaires d'origine physique</i>	35
D. CHRISTODOULOU, <i>Recent progress on the Cauchy problem in general relativity</i>	49
T. DAMOUR, <i>On some links between mathematical physics and physics in the context of general relativity</i>	59
C. DEWITT-MORETTE, <i>Functional integration. A multipurpose tool</i>	67
G. FERRARESE, C. CATTANI, <i>Generalized frames of references and intrinsic Cauchy problem in general relativity</i>	93
A.E. FISCHER, V. MONCRIEF, <i>Reducing Einstein's equations to an unconstrained Hamiltonian system on the cotangent bundle of Teichmüller space</i>	111
C.H. GU, <i>Darboux transformations for a class of integrable systems in n variables</i>	153
N.H. IBRAGIMOV, <i>Group theoretical treatment of fundamental solutions</i>	161
S. KLAINERMAN, M. MACHEDON, <i>On the regularity properties of the wave equation</i>	177
J. LERAY, <i>Le problème de Cauchy linéaire et analytique pour un opérateur holomorphe et un second membre ramifié [Résumé]</i>	193
P.L. LIONS, <i>On Boltzmann equation</i>	195
C. MORENO, L. VALERO, <i>Star products and quantum groups</i>	203
O.A. OLEINIK, <i>On asymptotic of solutions of a nonlinear elliptic equation in a cylindrical domain</i>	235
I. SEGAL, <i>Fundamental physics in universal space-time</i>	253
A.H. TAUB, <i>Interaction of gravitational and electromagnetic waves in general relativity</i>	265
C. TAUBES, <i>Anti-self dual conformal structures on 4-manifolds [Résumé]</i>	289

Tables rondes

Equations différentielles aux dérivées partielles (<i>présidée par J. VAILLANT</i>)	
E. CALZETTA, <i>Chaotic behavior in relativistic motion</i>	291
J. ISENBERG, V. MONCRIEF, <i>Some results on non constant mean curvature solutions of the Einstein constraint equations</i>	295
W. MATSUMOTO, <i>Levi condition for general systems</i>	303
J. VAILLANT, <i>Conditions invariantes pour un système, du type conditions de Levi</i>	309
Physique Mathématique (<i>présidée par G. PICHON</i>)	
P.C. AICHELBURG, <i>Black holes in supergravity</i>	315
E.A. CHRISTENSEN, J.N. SORENSEN, M. BRONS, P.L. CHRISTIANSEN, <i>Low-dimensional behaviour in the rotating driven cavity problem</i>	321
M. EPSTEIN, G. A. MAUGIN, <i>Some geometrical aspects of inhomogeneous elasticity</i>	331
T. BRUGARINO, A. M. GRECO, <i>Integrating the Kadomtsev-Petviashvili equation in the 1+3 dimensions via the generalised Monge-Ampère equation : an example of conditioned Painlevé test</i>	337
V.S. MANKO, N.R. SIBGATULLIN, <i>Spinning mass endowed with electric charge and magnetic dipole moment</i>	347
G. PICHON, <i>Equations de Vlasov en théorie discrète</i>	353
T. RUGGERI, <i>Convexity and symmetrization in classical and relativistic balance laws systems</i>	357