

## Contents

Thanks	vii
Preface	ix
A tribute to Patrizia Pucci JEAN MAWHIN	1
A scientific profile of Patrizia Pucci GIANLUCA VINTI	9
The Liouville theorem for homogeneous elliptic differential inequalities JAMES B. SERRIN	19
Multiplicity results for porous media and fast diffusion equations with a quadratic gradient term BOUMEDIENE ABDELLAOUI, IRENEO PERAL, and MAGDALENA WALIAS	37
A priori estimates for solutions of $p$ -Kirchhoff systems under dynamic boundary conditions GIUSEPPINA AUTUORI	59
Higher order linear parabolic equations GERASSIMOS BARBATIS and FILIPPO GAZZOLA	77
Sources of nonlinearity in the kinetic theory for active particles with focus on the formation of political opinions NICOLA BELLOMO and VINCENZO COSCIA	99
Yamabe type equations with sign-changing nonlinearities on the Heisenberg group, and the role of Green functions BRUNO BIANCHINI, LUCIANO MARI, and MARCO RIGOLI	115
Asymptotic behavior of the solution to variational inequalities with joint constraints on its value and its gradient MICHEL CHIPOT and KAREN YERESSIAN	137
Existence and uniqueness of solutions to a Cauchy problem modeling the dynamics of socio-political conflicts FRANCESCA COLASUONNO and MARIA CESARINA SALVATORI	155
Regularity points of ACL-homeomorphisms in the plane FERNANDO FARRONI, RAFFAELLA GIOVA, and CARLO SBORDONE	167

Energy estimates and integral Harnack inequality for some doubly nonlinear singular parabolic equations SIMONA FORNARO, MARIA SOSIO, and VINCENZO VESPRI	179
Initial value problems for diffusion equations with singular potential KONSTANTINOS T. GKIKAS and LAURENT VÉRON	201
On a class of fully nonlinear PDEs from complex geometry ERMANNO LANCONELLI and ANNAMARIA MONTANARI	231
Concentration of conformal volume, improved Moser-Trudinger inequalities and Toda systems ANDREA MALCHIODI	243
Periodic solutions of Lagrangian difference systems: Periodic nonlinearities (almost) don't matter JEAN MAWHIN	265
A limit problem for degenerate quasilinear variational inequalities in cylinders DIMITRI MUGNAI	281
Strong solutions for the wave equation with a kinetic boundary condition ENZO VITILLARO	295