

Table of contents

Preface	v
GREGORY A. CHECHKIN AND ANDREY YU. GORITSKY	
S. N. Kruzhkov's lectures on first-order quasilinear PDEs	1
MARTIN CAMPOS PINTO	
Adaptive semi-Lagrangian schemes for Vlasov equations	69
JULIEN JIMENEZ	
Coupling of a scalar conservation law with a parabolic problem	115
STEFAN LECOZ	
Standing waves in nonlinear Schrödinger equations	151
FRÉDÉRIC LEGOLL	
Multiscale methods coupling atomistic and continuum mechanics: some examples of mathematical analysis	193
SYLVIE MONNIAUX	
Maximal regularity and applications to PDEs	247
Index	289