

Contents

Preface	ix
Dmitry Viktorovich Anosov: His life and mathematics ANATOLE KATOK	1
D.V. Anosov and our road to partial hyperbolicity MICHAEL BRIN and YAKOV PESIN	23
Escape from large holes in Anosov systems VALENTIN AFRAIMOVICH and LEONID BUNIMOVICH	29
A dynamical decomposition of the torus into pseudo-circles FRANÇOIS BÉGUIN, SYLVAIN CROVISIER, and TOBIAS JÄGER	39
On irreducibility and disjointness of Koopman and quasi-regular representations of weakly branch groups ARTEM DUDKO and ROSTISLAV GRIGORCHUK	51
Isolated elliptic fixed points for smooth Hamiltonians BASSAM FAYAD and MARIA SAPRIKINA	67
Nonlocally maximal and premaximal hyperbolic sets T. FISHER, T. PETTY, and S. TIKHOMIROV	83
Rotation numbers for S^2 diffeomorphisms JOHN FRANKS	101
Path connectedness and entropy density of the space of hyperbolic ergodic measures ANTON GORODETSKI and YAKOV PESIN	111
Around Anosov-Weil theory V. GRINES and E. ZHUZHOMA	123
Attractors and skew products YU. ILYASHENKO and I. SHILIN	155
Thermodynamic formalism for some systems with countable Markov structures MICHAEL JAKOBSON	177
Non-uniform measure rigidity for \mathbb{Z}^k actions of symplectic type ANATOLE KATOK and FEDERICO RODRIGUEZ HERTZ	195
On a differentiable linearization theorem of Philip Hartman SHELDON E. NEWHOUSE	209

Time change invariants for measure preserving flows MARINA RATNER	263
Spectral boundary value problems for Laplace-Beltrami operator: Moduli of continuity of eigenvalues under domain deformation A. STEPIN and I. ZILIN	275
Measure-theoretical properties of center foliations MARCELO VIANA and JIAGANG YANG	291