

Contents

Preface	vii
List of talks and speakers	xi
List of participants	xiii
A survey on extensions of Riemannian manifolds and Bartnik mass estimates ARMANDO J. CABRERA PACHECO and CARLA CEDERBAUM	1
Four-dimensional homogeneous Kähler Ricci solitons ESTEBAN CALVIÑO-LOUZAO, EDUARDO GARCÍA-RÍO, IXCHEL GUTIÉRREZ-RODRÍGUEZ, and RAMÓN VÁZQUEZ-LORENZO	31
C^* -algebras and their nuclear dimension JORGE CASTILLEJOS	41
Short survey on the existence of slices for the space of Riemannian metrics DIEGO CORRO and JAN-BERNHARD KORDASS	65
Model theory and metric convergence II: Averages of unitary polynomial actions EDUARDO DUEÑEZ and JOSÉ N. IOVINO	85
A survey on the blow-up method for fast-slow systems HILDEBERTO JARDÓN-KOJAKHMETOV and CHRISTIAN KUEHN	115
Langlands Program and Ramanujan Conjecture: A survey LUIS ALBERTO LOMELÍ	161
The least quadratic non-residue KEVIN MCGOWN and ENRIQUE TREVIÑO	205
Thin homotopy and the holonomy approach to gauge theories CLAUDIO MENESES	233
On fractional higher-order Dirichlet boundary value problems: Between the Laplacian and the bilaplacian ALBERTO SALDAÑA	255
H^1 solutions on curve integrable spacetimes YAFET SANCHEZ SANCHEZ	279

On the pseudospectra of Schrödinger operators on Zoll manifolds DAVID SHER, ALEJANDRO URIBE, and CARLOS VILLEGAS-BLAS	291
On a conjecture of Naito–Sagaki: Littelmann paths and Littlewood–Richardson Sundaram tableaux JACINTA TORRES	305