

Contents

Preface		
ADAM KORÁNYI		ix
 Part I. Minicourses.		
Local fields and trees		
ALESSANDRO FIGÀ-TALAMANCA		3
Martin boundaries and random walks		
STANLEY A. SAWYER		17
A brief introduction to buildings		
DONALD I. CARTWRIGHT		45
Local fields and buildings		
TIM STEGER		79
 Part II. Abstracts of Lectures.		
Heat kernel for regular trees		
DEBE BEDNARCHAK		111
Tensor product of spherical representations of the group of automorphisms of a homogeneous tree		
DONALD I. CARTWRIGHT, M. GABRIELLA KUHN*, AND PAOLO M. SOARDI		113
The horocyclic Radon transform on trees		
ENRICO CASADIO TARABUSI		117
Eigenfunctions of the Laplacian on a homogeneous tree		
JOEL M. COHEN* AND FLAVIA COLONNA		121
Exotic convergence in theorems of Fatou type		
FAUSTO DI BIASE		125
A spectral gap property for transfer operators		
YVES GUIVARC'H		129
Harmonic functions on discrete subgroups of semi-simple Lie groups		
VADIM A. KAIMANOVICH		133

Biased random walks and harmonic functions on the Lamplighter group RUSSELL LYONS	137
Characterization of the eigenfunctions of the Laplace operators for an affine building of rank 2 A. M. MANTERO AND A. ZAPPA*	141
Free product of representations WOJCIECH MŁOTKOWSKI	145
The Jacobian of a finite graph TATIANA NAGNIBEDA	149
Flows and harmonic functions on graphs S. NORTHSHIELD	153
Applications of diffusion processes on trees to mathematical finance MAURO PAGLIACCI	157
Characterizing harmonic functions by mean value properties on trees and symmetric spaces MASSIMO A. PICARDELLO	161
Factors from buildings JACQUI RAMAGGE* AND GUYAN ROBERTSON	165
Harnack and Liouville properties on graphs MARCO RIGOLI, MAURA SALVATORI*, AND MARCO VIGNATI	169
The spectrum of a directed Cayley graph of a free group GUYAN ROBERTSON	173
Factorization of the Green's kernel for non-nearest neighbor random walks MITCHELL H. TAIBLESON	175
Harmonic functions for group-invariant random walks WOLFGANG WOESS	179

*In the case of multiple authors, an asterisk follows the name of the author who made the presentation at the workshop.