

Table of Contents

Preface	xi
Organizing committee	xv
Conference participants	xvii
Conference program	xix

Part 1. COSMOLOGICAL WEAK LENSING AND LARGE SCALE STRUCTURE

Cosmic Shear on Distant Galaxies	3
<i>L. van Waerbeke and Y. Mellier</i>	
Shapelets “Multiple Multipole” Shear Measurement	31
<i>R. Massey, A. Refregier, D. Bacon</i>	
Evolution of the Dark Matter Distribution with 3-D Weak Lensing	37
<i>D.J. Bacon, A.N. Taylor, M.L. Brown, M.E. Gray, C. Wolf, K. Meisenheimer, S. Dye, L. Wisotzki, A. Borch, M. Kleinheinrich</i>	
Weak Lensing Results from GEMS	43
<i>C. Heymans, M.L. Brown, M. Barden, J.A.R. Caldwell, K. Jahnke, H.-W. Rix, A.N. Taylor, S. Beckwith, E. Bell, A. Borch, B. Häusser, S. Jogee, D.H. McIntosh, K. Meisenheimer, C. Peng, S. F. Sánchez, R. Somerville, L. Wisotzki and C. Wolf</i>	
Simulating Cosmic Shear Surveys with Redshift Information	49
<i>L. King, P. Simon, P. Schneider</i>	
Subaru Suprime-Cam Weak Lensing Survey over 33 deg	57
<i>S. Miyazaki, T. Hamana, A. Refregier, R.J. Massey, R.S. Ellis, N. Kashikawa</i>	
Cosmology with 3-D Gravitational Lensing	63
<i>A. Taylor</i>	
Cosmic Shear in 3D	69
<i>A.F. Heavens, T.D. Kitching</i>	
Cosmological Constraints from Cosmic Shear and CMB	75
<i>I. Tereno</i>	
Third-Order Aperture Mass Statistics of Cosmic Shear	81
<i>M. Kilbinger and P. Schneider</i>	

Lensing on the Cosmic Microwave Background and its Correlation with Large-Scale Structure Surveys.....	87
<i>F. Bernardeau</i>	
Weak Lensing of the CMB by Large-Scale Structure	105
<i>A. Amblard, C. Vale, M. White</i>	
A Search for Sensing of CMB in Correlation with Large-Scale Structure	111
<i>C. Hirata, for the SDSS collaboration</i>	
Dark Energy and CMB Bispectrum	117
<i>F. Giovi and C. Baccigalupi</i>	
Weak Lensing and Gravity Theories.....	123
<i>V. Acquaviva, C. Baccigalupi, F. Perrotta</i>	
Weak Lensing in Scalar-Tensor Theories of Gravity: Preliminary Results	129
<i>C. Schimd</i>	

Part 2. CLUSTER SCALE HALOS WITH WEAK AND STRONG LENSING

Galaxy Groups towards Lensed Quasars	143
<i>C. Faure</i>	
Strong Lensing by High-Redshift Red-Sequence Selected Galaxy Clusters	149
<i>M. Gladders</i>	
Strong & Weak Lensing United: the Cluster Mass Distribution of RX J1347-1145	155
<i>M. Bradač, P. Schneider, T. Erben and M. Lombardi</i>	
Hubble, Chandra and Keck Constraints on Massive Galaxy Clusters at z=0.2 and z=0.5	161
<i>G.P. Smith</i>	
Strong Lensing Analysis of A1689 from Deep ACS Images	167
<i>K. Sharon, T.J. Broadhurst, N. Benitez, D. Coe, H. Ford and ACS Science Team</i>	
Results from the ESO Distant Cluster Survey.....	173
<i>D. Clowe, P. Schneider and the EDIsCS Consortium</i>	
Lensing & Dynamics in the Galaxy Cluster MS2137-23	179
<i>R. Gavazzi</i>	
Constraints on Dark Energy from Strong Gravitational Lensing by Galaxy Clusters	185
<i>M. Meneghetti, C. Baccigalupi, M. Bartelmann, K. Dolag, L. Moscardini, F. Perrotta, and G. Tormen</i>	

Strong Lensing by Galaxy Clusters and Λ CDM	193
<i>N. Dalal, J.F. Hennawi, G. Holder and P. Bode</i>	
Part 3. GALAXY SCALE HALOS WITH WEAK AND STRONG LENSING	
Where Does The Dark Matter Begin	205
<i>C.S. Kochanek</i>	
Predicting Substructure in CDM Haloes	225
<i>J.E. Taylor, A. Babul</i>	
Evolution of Dark Matter Halo Density Profiles and Substructure from Λ CDM Simulations	231
<i>D. Reed, F. Governato, L. Verde, J. Gardner, T. Quinn, J. Stadel, D. Merritt, and G. Lake</i>	
Einstein Ring Constraints on the Shape of Dark Matter Haloes	237
<i>R.B. Wayth, R.L. Webster</i>	
Higher order Cross-Correlations Functions from Galaxy-Galaxy-Galaxy Lensing	243
<i>P. Watts, P. Schneider</i>	
Galaxy-Galaxy Lensing Studies from COMBO-17	249
<i>M. Kleinheinrich, H.-W. Rix, P. Schneider, T. Erben, K. Meisenheimer, C. Wolf, and M. Schrimer</i>	
The Effects of Multiple Weak Deflections in Galaxy-Galaxy Lensing	255
<i>T.G. Brainerd</i>	
Small-Scale Structure, Missing Galaxies and Gravitational Lensing	267
<i>R.B. Metcalf</i>	
Part 4. TIME DELAYS AND HUBBLE CONSTANT	
The Hubble Constant from Gravitational Lens Time Delays	281
<i>P.L. Schechter</i>	
COSMOGRAIL: the COSmological MONitoring of GRAVitational Lenses	297
<i>F. Courbin, A. Eigenbrod, C. Vuissoz, G. Meylan, P. Magain</i>	
The Possible Origins of the V,R Magnification Ratios of Q0957+561A,B	305
<i>A. Ullán, L.J. Goicoechea, R. Gil-Merino, M. Serra-Ricart, J.A. Muños, E. Mediavilla, J. González-Cadillo and A. Oscoz</i>	
Galaxy Groups Associated with Gravitational Lenses & H_0 from B1608+656...	311
<i>C. Fassnacht, L. Lubin, J. McKean, R. Gal, G. Squires, L. Koopmans, T. Treu, R. Blandford, and D. Rusin</i>	

Part 5. MICRO LENSING

Microlensing Search for Dark Matter at all Mass Scales	321
<i>J. Wambsganss</i>	
Spectroscopic Evidence for Quasar Microlensing.....	333
<i>L. Wisotzki, S. Lopez, O. Wucknitz</i>	
Microlensing towards LMC and M31	339
<i>P. Jetzer, A. Milsztajn, P. Tisserand</i>	
Spatially Varying Mass Function of MACHOs in the Galactic Halo and Interpretation of Microlensing Results.....	351
<i>S. Rahvar</i>	
The SuperMACHO Microlensing Survey	357
<i>A.C. Becker, A. Rest, C. Stubbs, G.A. Miknaitis, A. Miceli, R. Covarrubias, S.L. Hawley, C. Aguilera, R.C. Smith, N.B. Suntzeff, K. Olsen, J.L. Prieto, R. Hiriart, A. Garg, D.L. Welch, K.H. Cook, S. Nikolaev, A. Clowchiatti, D. Minniti, S.C. Keller, and B.P. Schmidt</i>	
Contribution of Microlensing to X-Ray Variability of distant QSOs	363
<i>A.F. Zakharov, L. Č. Popović, P. Janović</i>	

Part 6. LENSING THE HIGH REDSHIFT UNIVERSE

Very High-Redshift Lensed Galaxies	373
<i>R. Pelló, D. Schaefer, J. Richard, J.-F. Le Borgne, J.-K. Kneib</i>	
Stellar Populations and Ly α Emission from Lensed $z \gtrsim 6$ Galaxies	387
<i>D. Schaefer and R. Pelló</i>	
The Vimos-VLT Deep Survey: Results from the First-Epoch Observations	395
<i>S. Paltani, O. Ilbert, O. Le Fèvre, C. Marinoni, D. Bottini, B. Garilli, V. Le Brun, D. Maccagni, J.-P. Riccati, R. Scaramella, M. Scovello, L. Tresse, G. Vettolani, A. Zanichelli, C. Adami, M. Arnaboldi, S. Arnouts, S. Bardelli, M. Bolzonella, A. Cappi, S. Charlot, T. Contini, S. Foucaud, P. Franzetti, I. Gavignaud, L. Guzzo, A. Iovino, H.J. McCracken, B. Marano, A. Mazure, B. Meneux, R. Merighi, R. Pelló, A. Pollo, L. Pozzetti, M. Radovich, G. Zamorani, E. Zucca, M. Bondi, A. Bongiorno, G. Busarello, P. Ciliegi, L. Gregorini, G. Mathez, Y. Mellier, P. Merluzzi, V. Ripepi, and D. Rizzo</i>	
Lensing by Absorber Systems	401
<i>B. Ménard</i>	
Large-Separation Lensed Quasars in the SDSS	407
<i>M. Oguri</i>	

Quasar Lensing Statistics and Ω_Λ : What Went Wrong?	413
<i>D. Maoz</i>	
Thirty Meter Telescopes and Gravitational Lensing	419
<i>R.G. Carlberg</i>	
Part 7. CONCLUDING REMARKS	
Gravitational Lensing: Past and Future.....	429
<i>J.A. Peacock</i>	

Index

Author index	443
Object index.....	447