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Light weighed: on the statistics and systematics of weak gravitational lensing

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Light Weighed:
On the Statistics and Systematics of Weak
Gravitational Lensing
by
Galaxy Groups and Clusters

Proefschrift

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*“The dreams of childhood – its airy fables,
its graceful, beautiful, humane, impossible adornments of the world beyond;
so good to be believed in once, so good to be remembered when outgrown.”*

– Charles Dickens, *Hard Times*

*Voor Marije,
voor alle dromen die we samen werkelijkheid maken*

*Voor Annelie,
dat jouw dromen en verbeelding eindeloos mogen zijn*

*In herinnering aan mijn vader George,
als dromer, lezer en denker in grootse verhalen*

*“Why do you go away? So that you can come back.
So that you can see the place you came from with new eyes and extra colors.*

*And the people there see you differently, too.
Coming back to where you started is not the same as never leaving.”*

– Terry Pratchett, *A Hat Full of Sky*

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Cover:

The foreground is an engraving of a “portable” camera obscura in Athanasius Kircher’s *Ars Magna Lucis Et Umbrae* (1645).

The background is the strong lensing cluster Abell S1063, as observed by the NASA/ESA Hubble Space Telescope as part of the Frontier Fields programme. *Credit: NASA, ESA, and J. Lotz (STScI)*.

Contents

1	Introduction	1
1.1	Now you see me	2
1.1.1	Observations and bias	2
1.1.2	Dark matter	4
1.2	Weak gravitational lensing	7
1.2.1	The basics of gravitational lensing	7
1.2.2	The measurement of shapes	12
1.2.3	The inference of weak shear	16
1.2.4	Results and interpretation	17
1.3	Thesis outline	18
1.3.1	Supergroup SG1120–1202	18
1.3.2	Low redshift galaxy groups in ZENS	19
1.3.3	Optimal statistics for weak shear	19
1.3.4	AMICO clusters in KiDS-450	20
2	Supergroup SG1120–1202	21
2.1	Introduction	22
2.2	Weak lensing framework	23
2.3	Data	24
2.3.1	HST imaging	24
2.3.2	Spectroscopy	25
2.3.3	Subgroups	26
2.4	Analysis	27
2.4.1	KSB+ shape measurements	27
2.4.2	Redshift distribution	29
2.4.3	Lensing analysis	33
2.5	Results	34
2.5.1	Matter distribution	34
2.5.2	Individual groups	35
2.6	Summary	38
2.A	Quality and selection criteria for background sources	39
3	Low redshift galaxy groups in ZENS	41
3.1	Introduction	42
3.2	Data	43
3.3	Methods	44
3.3.1	Weak gravitational lensing terminology	45
3.3.2	Shapelets	46
3.3.3	KSB+	47
3.4	Shape Measurements	47
3.4.1	Robustness	48

3.4.2	Possible systematics	51
3.4.3	Background redshift distribution	54
3.5	Gravitational shear signal and mass estimates	57
3.5.1	Convex Hull Peeling	58
3.5.2	Group centre of mass	59
3.5.3	Velocity dispersion	61
3.5.4	Mass and concentration	62
3.5.5	The heaviest groups	63
3.6	Conclusions	64
3.6.1	Shape measurements	64
3.6.2	Measured signal	65
3.6.3	Profile shapes	65
3.6.4	General conclusion	65
3.6.5	Future work	66
4	Optimal statistics for weak shear	69
4.1	Introduction	70
4.2	Weak lensing	72
4.3	Statistical framework	75
4.3.1	Bias, efficiency and robustness	75
4.3.2	Estimators	77
4.3.3	Fourier mode fitting	80
4.4	Simulations and data	81
4.4.1	Simulated ellipticity distributions	82
4.4.2	Data: CFHTLenS	84
4.4.3	Simulated noise	85
4.5	Results	87
4.5.1	Central value estimation	87
4.5.2	Fourier mode fitting	92
4.6	Conclusions and summary	94
4.6.1	Optimal estimators	94
4.6.2	Direct Fourier mode fitting	94
4.6.3	Future considerations and possible applications	95
4.A	Bias estimations	96
4.B	Efficiency estimations	96
4.C	Estimations from Fourier mode fitting	96
5	AMICO galaxy clusters in KiDS-450	103
5.1	Introduction	104
5.2	Weak gravitational lensing statistics	106
5.2.1	Principles of weak lensing	106
5.2.2	Estimation of the surface density profile	110
5.2.3	Statistical framework	111
5.2.4	Halo model	113
5.3	Data and analysis	114
5.3.1	Lenses	115

5.3.2	Sources	115
5.3.3	Implementation	118
5.4	Results	120
5.4.1	ESD profiles	120
5.4.2	Bias and efficiency	120
5.4.3	Halo masses	122
5.4.4	$L_{200} - M_{200}$ scaling relation	123
5.5	Summary and conclusions	124
5.5.1	$L_{200} - M_{200}$ relation	125
5.5.2	Optimal estimators	127
5.A	Tests for systematics	128
5.A.1	Photometric redshift	128
5.A.2	Contamination of the background sample by cluster galaxies	129
5.A.3	Individual bin ESD profiles and cross signals	129
5.A.4	Tile bootstrap	130
5.B	Analysis of dependence on outer data points	130
6	Nederlandse samenvatting	133
6.1	“De hemel bij nacht”	134
6.1.1	Waarnemingen en vertekening	134
6.1.2	Donkere materie	135
6.2	Gravitiatielenzen	136
6.2.1	Kromming van ruimtetijd	136
6.2.2	Metingen en interpretatie	137
6.3	Dit proefschrift	139
Bibliography		143
Publications		153
Curriculum Vitae		155
Acknowledgements		159

