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Simulating the cosmic distribution of neutral hydrogen and its connection with galaxies

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SIMULATING THE COSMIC DISTRIBUTION OF
NEUTRAL HYDROGEN
AND
ITS CONNECTION WITH GALAXIES

ALIREZA RAHMATI

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Front: The column density distribution of neutral hydrogen in a photoshoped simulated galaxy. This design is motivated by the main findings of Chapter 4.

Back: Ancient constellations as published in *The book of fixed stars* by the famous Iranian astronomer, Abd al-Rahman al-Sufi in 964 A.D. This highly influential book has been reproduced numerous times during the last millennium. The illustrations used for the design of the back-cover are taken from a version produced in 1430-1440 A.D. in Samarkand (Uzbekistan), which is accessible through the following link:

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SIMULATING THE COSMIC DISTRIBUTION OF
NEUTRAL HYDROGEN
AND
ITS CONNECTION WITH GALAXIES

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TABLE OF CONTENTS

1	Introduction	1
1.1	Current standard model for galaxy formation and evolution	2
1.1.1	Cosmology: the backbone of galaxy formation	2
1.1.2	Main physical processes that drive galaxy evolution	3
1.2	Neutral hydrogen in galactic ecosystems	4
1.3	Simulations	6
1.3.1	Cosmological hydrodynamical simulations	6
1.3.2	Radiative transfer	8
1.3.3	Radiative transfer with TRAPHIC	10
1.4	This thesis	11
	References	13
2	On the evolution of the H I column density distribution in cosmological simulations	15
2.1	Introduction	16
2.2	Simulation techniques	18
2.2.1	Hydrodynamical simulations	18
2.2.2	Radiative transfer with TRAPHIC	19
2.2.3	Ionizing background radiation	22
2.2.4	Recombination radiation	26
2.2.5	The H I column density distribution function	26
2.2.6	Dust and molecular hydrogen	27
2.3	Results	30
2.3.1	Comparison with observations	30
2.3.2	The shape of the H I CDDF	34
2.3.3	Photoionization rate as a function of density	36
2.3.4	The roles of diffuse recombination radiation and collisional ionization at $z = 3$	39
2.3.5	Evolution	41
2.4	Conclusions	45
	Acknowledgments	46
	References	47
	Appendix A: Photoionization rate as a function of density	49
	A1: Replacing the RT simulations with a fitting function	49
	A2: The equilibrium hydrogen neutral fraction	50
	Appendix B: The effects of box size, cosmological parameters and resolution on the H I CDDF	53
	Appendix C: RT convergence tests	53
	C1: Angular resolution	53
	C2: The number of ViP neighbors	53
	C3: Direct comparison with another RT method	55
	Appendix D: Approximated processes	56
	D1: Multifrequency effects	56

TABLE OF CONTENTS

D2: Helium treatment	57
3 The impact of local stellar radiation on the H I column density distribution	59
3.1 Introduction	61
3.2 Photoionization rate in star-forming regions	63
3.3 Simulation techniques	64
3.3.1 Hydrodynamical simulations	64
3.3.2 Radiative transfer	65
3.3.3 Ionizing background radiation and diffuse recombination radiation	67
3.3.4 Stellar ionizing radiation	68
3.4 Results and discussion	70
3.4.1 The role of local stellar radiation in hydrogen ionization . .	70
3.4.2 Star-forming particles versus stellar particles	76
3.4.3 Stellar ionizing radiation, its escape fraction and the buildup of the UVB	79
3.4.4 The impact of local stellar radiation on the H I column density distribution	82
3.5 Discussion and conclusions	87
Acknowledgments	91
References	91
Appendix A: Hydrogen molecular fraction	93
Appendix B: Resolution effects	94
B1: Limited spatial resolution at high densities	94
B2: The impact of a higher resolution on the RT	95
Appendix C: Calculation of the escape fraction	97
4 Predictions for the relation between strong H I absorbers and galaxies at redshift 3	99
4.1 Introduction	100
4.2 Simulation techniques	102
4.2.1 Hydrodynamical simulations	102
4.2.2 Finding galaxies	103
4.2.3 Finding strong H I absorbers	103
4.2.4 Connecting H I absorbers to galaxies	107
4.3 Results and discussion	108
4.3.1 Spatial distribution of H I absorbers	110
4.3.2 The effect of a finite detection threshold	111
4.3.3 Distribution of H I absorbers relative to halos	114
4.3.4 Resolution limit in simulations	115
4.3.5 Correlations between absorbers and various properties of their associated galaxies	119

4.3.6	Are most strong H α absorbers at $z \sim 3$ around Lyman-Break galaxies?	124
4.4	Summary and conclusions	126
	Acknowledgments	128
	References	128
	Appendix A: Choosing the maximum allowed LOS Velocity difference	131
	Appendix B: Impact of feedback	131
	Appendix C: Impact of local stellar radiation	134
	Appendix D: Resolution tests	135
5	Genesis of the dusty Universe: modeling submillimetre source counts	141
5.1	Introduction	143
5.2	Model ingredients	145
5.2.1	CLF at $z = 0$	146
5.2.2	CLF evolution	147
5.2.3	SED Model	149
5.2.4	The algorithm	150
5.3	850 μm Observational Constraints	152
5.3.1	Observed 850 μm source count	152
5.3.2	Redshift distribution of bright 850 μm sources	153
5.4	Finding 850 μm best-fit Model	154
5.4.1	The source count curve: Amplitude vs. Shape	154
5.4.2	The luminosity evolution	155
5.5	Other necessary model ingredients	157
5.5.1	The 850 μm best-fit model	159
5.6	Other wavelengths	160
5.6.1	Long submm wavelengths: 850 μm and 1100 μm	162
5.6.2	SPIRE intermediate wavelengths: 500 μm , 350 μm and 250 μm	164
5.6.3	Short wavelengths: 160 μm and 70 μm	165
5.6.4	A best-fit model for all wavelengths	166
5.7	Discussion	171
5.7.1	The implied evolution scenario for dusty galaxies	171
5.7.2	Our best-fit model and previous models	175
5.8	Conclusions	177
	Acknowledgments	178
	References	179
	Appendix A: Some numerical details	181
	Publications	183
	Curriculum Vitae	185

