

Contents

1	Introduction	5
2	Imaging the solar corona	6
2.1	The solar corona	6
2.2	Imaging possibilities for the solar corona	6
2.3	Methods of compensation for the brightness gradient	8
3	Fourier normalizing-radial-graded filter	9
3.1	Normalizing-radial-graded filter	9
3.2	The principle of the filter	10
3.2.1	The basic idea of the filter	10
3.2.2	Attenuation coefficients	14
3.2.3	Influence of additive noise	17
3.3	Results	19
3.3.1	Application to total solar eclipse observations	19
3.3.2	Application to space-based observations	21
3.3.3	Comparison with other methods	22
3.4	Software implementation	25
4	Conclusion	27
	Bibliography	28
	Curriculum vitae	31