

Contents

Chapter 1	Randers Spaces	1
1.1	Randers Norms	2
1.2	Distortion and Volume Form	5
1.3	Cartan Torsion	7
1.4	Duality	9
	Bibliography	11
Chapter 2	Randers Metrics and Geodesics	13
2.1	Randers Metrics	14
2.2	Zermelo's Navigation Problem	15
2.3	Geodesics	18
2.4	Randers Metrics of Berwald Type	23
	Bibliography	24
Chapter 3	Randers Metrics of Isotropic S-Curvature	27
3.1	S-Curvature	27
3.2	Isotropic S-Curvature in Terms of α and β	29
3.3	Isotropic S-Curvature in Terms of h and W	33
3.4	Examples of Isotropic S-Curvature	37
3.5	Randers Metrics with Secondary Isotropic S-Curvature	44
	Bibliography	49
Chapter 4	Riemann Curvature and Ricci Curvature	51
4.1	Definitions	51
4.2	Riemann Curvature of Randers Metrics	53
4.3	Randers Metrics of Scalar Flag Curvature	55
	Bibliography	59
Chapter 5	Projective Geometry of Randers Spaces	61
5.1	Projective Quantities	61
5.2	Douglas-Randers Metrics	63
5.3	Weyl-Randers Metrics	65
5.4	Generalized Douglas-Weyl Randers Metrics	69
	Bibliography	74
Chapter 6	Randers Metrics with Special Riemann Curvature Properties	77
6.1	Ricci-Quadratic Randers Metrics	77
6.2	Randers Metrics of R-Quadratic Curvature	78

6.3	Randers Metrics of W-Quadratic Curvature	80
6.4	Randers Metrics of Sectional Flag Curvature	81
	Bibliography	88
Chapter 7	Randers Metrics of Weakly Isotropic Flag Curvature	91
7.1	Weak Einstein Randers Metrics	91
7.2	Randers Metrics of Weakly Isotropic Flag Curvature	96
7.3	Solutions via Navigation	101
7.4	Weak Einstein Randers Metrics via Navigation Data	107
	Bibliography	109
Chapter 8	Projectively Flat Randers Metrics	111
8.1	Projectively Flat Randers Metrics of Constant Flag Curvature	111
8.2	Projectively Flat Randers Metrics of Weakly Isotropic Flag Curvature	115
8.3	Projectively Flat Randers Metrics on S^n	121
	Bibliography	124
Chapter 9	Conformal Geometry of Randers Metrics	127
9.1	Conformally Invariant Spray	127
9.2	Conformally Flat Randers Metrics	131
9.3	Conformally Berwaldian Randers Metrics	133
	Bibliography	134
Chapter 10	Dually Flat Randers Metrics	137
10.1	Dually Flat Finsler Metrics	137
10.2	Dually Flat Randers Metrics	140
10.3	Dually Flat Randers Metrics with Isotropic S-Curvature	143
	Bibliography	147
Index		149