

Contents

1	The Origin of Generalized Metric Spaces	1
1.1	Notations and Terminologies	2
1.2	Distance Functions	5
1.3	Bases	12
1.4	Stratifications	18
1.5	Networks and (mod k)-Networks	24
1.6	k -Networks and Weak Bases	28
1.7	Generalized Countably Compact Spaces	34
1.8	Examples	39
2	Mappings on Metric Spaces	53
2.1	Classes of Mappings	54
2.2	Perfect Mappings	61
2.3	Quotient Mappings	71
2.4	Open Mappings	78
2.5	Closed Mappings	86
2.6	Compact-Covering Mappings	98
2.7	s -Mappings	106
2.8	ss -Mappings	115
2.9	π -Mappings	123
2.10	Compact Mappings	130
2.11	σ -Locally Finite Mappings	141
3	Generalized Metric Spaces	147
3.1	Spaces with Point-Countable Covers	148
3.2	Σ -Spaces	160
3.3	σ -Spaces and Semi-Stratifiable Spaces	180
3.4	k -Semi-Stratifiable Spaces	192
3.5	M_i -Spaces	203
3.6	Developable Spaces and p -Spaces	212

3.7	<i>M</i> -Spaces	225
3.8	\aleph -Spaces	234
3.9	<i>g</i> -Metrizable Spaces	247
3.10	Several Open Questions	253
Appendix A: Characterizations of Several Covering Properties		259
Appendix B: The Formation of the Theory of Generalized		
	Metric Spaces	277
References		303
Index		323



<http://www.springer.com/978-94-6239-215-1>

Generalized Metric Spaces and Mappings

Lin, S.; Yun, Z.

2016, XVI, 328 p., Hardcover

ISBN: 978-94-6239-215-1

A product of Atlantis Press