CONTENTS

| Preface | | | | vii |
|--------------------|---------------------------------------|--|--|-----|
| Index of Notations | | | | ix |
| | His | storical Background | | 1 |
| 1 | Basic properties | | | 7 |
| | 1 | Introduction | | 7 |
| | 2 | Topology induced by a proximity | | 10 |
| | 3 | Alternate description of proximity | | 15 |
| | 4 | Subspaces and products of proximity spaces | | 19 |
| | | Notes | | 26 |
| 2 | Compactifications of proximity spaces | | | 27 |
| | 5 | Clusters and ultrafilters | | 27 |
| | 6 | Duality in proximity spaces | | 34 |
| | 7 | Smirnov compactification | | 38 |
| | 8 | Proximity weight and compactification | | 47 |
| | 9 | Local proximity spaces | | 52 |
| | | Notes | | 61 |
| 3 | Proximity and uniformity | | | 63 |
| | 10 | Proximity induced by a uniformity | | 63 |
| | 11 | Completion of a uniform space by Cauchy clusters | | 67 |
| | 12 | Proximity class of uniformities | | 71 |
| | 13 | Generalized uniform structures | | 78 |
| | 14 | Proximity and height | | 84 |
| | 15 | Hyperspace uniformities | | 87 |
| | | Notes | | 92 |

| • |
|-----|
| 771 |

CONTENTS

| 4 | Further developments | | page | 94 | |
|-----------------------------------|----------------------|--|------|-----|--|
| | 16 | Proximal convergence | | 94 | |
| | 17 | Unified theories of topology, proximity and uniformity | | 97 | |
| | 18 | Sequential proximity | | 100 | |
| | 19 | Generalized proximities | | 104 | |
| | 20 | More on Lodato spaces | | 108 | |
| | | Notes | | 114 | |
| General References | | | | 116 | |
| Bibliography for proximity spaces | | | | 117 | |
| In. | dex | | | 195 | |