

# CONTENTS

INTRODUCTION	iii
<b>1</b> PRELIMINARIES	1
<b>2</b> BASIC MEASURES OF NONCOMPACTNESS	4
<b>3</b> MEASURE OF NONCOMPACTNESS: AXIOMATIC APPROACH	9
<b>4</b> OPERATORS SATISFYING DARBO CONDITIONS: MEASURE CONTRACTIONS	15
<b>5</b> FIXED POINT THEOREMS	17
<b>6</b> MEASURES OF NONCOMPACTNESS IN BANACH SEQUENCE SPACES	21
<b>7</b> MEASURES OF NONCOMPACTNESS IN SPACES OF CONTINUOUS FUNCTIONS	28
<b>8</b> SPACES OF DIFFERENTIABLE FUNCTIONS	37
<b>9</b> SPACES OF TEMPERED CONTINUOUS FUNCTIONS	45
<b>10</b> SPACES OF INTEGRABLE FUNCTIONS	50
<b>11</b> THE SPACE $C(\langle a, b \rangle, E)$	57
<b>12</b> GENERAL REMARKS ON REGULAR MEASURES	62
<b>13</b> DIFFERENTIAL EQUATIONS IN BANACH SPACES	67
<b>14</b> MISCELLANEOUS EXAMPLES	80
REFERENCES	89
BIBLIOGRAPHY	93