CONTENTS

INTRODUCTION 1.

1. DEFINITIONS AND DIRECT CONSEQUENCES 3.

proposition 1.3. Any superextension $\lambda_{\mathcal{S}}X$ is (super)compact and T_1.

theorem 1.1. If $\mathcal{S}$ is a normal T_1-subbase for X, then $\lambda_{\mathcal{S}}X$ is T_2.

proposition 1.5. If $\mathcal{S}$ is a weakly normal T_1-subbase for X then $(\mathrm{cl}_{\lambda_{\mathcal{S}}X}\, X) \overset{\mathrm{def}}{=} \beta_{\mathcal{S}}X$ is T_2.

2. THE INARIANCE OF SOME PROPERTIES 10.

theorem 2.1. Extension of a continuous map $f: X \to Y$ to $\bar{f}: \lambda_{\mathcal{S}}X \to \lambda_{\mathcal{T}}Y$.

corollary 1. If $\mathcal{Z}$ is the set of all zerosets of a Tychonoffspace then $\mathrm{cl}_{\lambda_{\mathcal{Z}}X}\, X$ is homeomorphic to the Čech-Stone-compactification of X.

theorem 2.2. If X is infinite, compact and T_2, then the weight of X equals the weight of the superextension of X.

proposition 2.2. If X is compact, T_2 and zerodimensional, then so is the superextension.

theorem 2.4. The superextension of a compact, metrizable space is (compact and) metrizable.

3. FINITELY DETERMINED MAXIMAL LINKED SYSTEMS 16.

theorem 3.1. The f.m.l.s-s are dense in a superextension.

theorem 3.3. The superextension of a connected space is connected and locally connected.

4. EXAMPLES 23.

1. A superextension of $[0,1]$ that is not T_2.
2. A superextension of $[0,1]$ that is not connected.
3. A superextension of $[0,1]$ that is not locally connected.
4. Example on a four-point discrete space.

5. Example on f.m.l.s-s.
6. The superextension of $\lambda\mathbb{N}$.
7. Illustration of theorem 3.3.
8. Linearly ordered spaces.
9. The closure of X in the superextension.
10. Example on connected sets.
11. The + and the $*$ operator.

Some unsolved problems.

REFERENCES 31.

INDEX; LIST OF SYMBOLS 32.