



# ON FINITE $\{s-1, s\}$ -SEMI-AFFINE LINEAR SPACES

A. KURTULUŞ\*

## *Abstract*

*In this paper, We investigate  $\{s-1, s\}$ -semiaffine linear spaces with constant point degree. Using only combinatorial techniques we obtaine some results.*

## 1.Introduction

The subject of finite semiaffine linear spaces has been studied and nice combinatorial corollaries ([1], [2], [3], [4], [5], [6]) have been obtained on this subject. In this paper, We investigate  $\{s-1, s\}$ -semiaffine linear spaces with constant point degree. A finite linear space is a pair  $S = (P, L)$  consisting of a finite set  $P$  of elements called points and a finite set  $L$  of distinguished subsets of points, called lines satisfying the following axioms.

- (L1) Any two distinct points of  $S$  belong to exactly one line of  $S$
- (L2) Any line of  $S$  has at least two points of  $S$ .
- (L3) There are three points of  $S$  not on a common line.

The degree  $[p]$  of a point  $p$  is the number of lines through  $p$ . If  $n+1 = \max\{[p], p \in P\}$ , then  $n$  is called the order of the space  $S = (P, L)$ . We use  $\nu$  and  $b$  to denote respectively the number of points and of lines of  $S$ .