

RELATION BETWEEN CROSSED SQUARE AND CROSSED CORNER

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ABSTRACT

The term crossed corner was introduced by Alp in (Alp , 1999) and its examples were also given in (Alp , 1999). In this paper we who defined the crossed corner morphism and also gave an important proposition which is established the equivalence between crossed corner and crossed square.

1991 A. M. S. C. 13D99, 16A99, 17B99, 17D99, 18D35.

Keywords Crossed module, Cat^1 -group, Crossed Square, Crossed Corner, Gap.

ÖZET

Bu makalede (Alp , 1999 ; Alp ; 2000 ; Alp , 1997 ; Alp and Wensley, 2000) deki çalışmaların ışığı altında çaprazlanmış kare ile çaprazlanmış köşe arasındaki ilişki incelenmiş olup , bu kategorilerin birbirlerine denk oldukları gösterilmiştir.

1.Introduction

The term of crossed module was introduced by J.H.C. Whitehead in (Whitehead , 1949) A computer programming package XMOD (Alp and Wensley, 2000) has been developed by C.D. Wensley and M. Alp, written using the GAP (Schönert , 1993) group theory programming language to calculate crossed modules, their morphism and derivations; Cat^1 -groups, their morphism and sections. The study of bi-relative Steinberg groups has led to the definition of a type of 2-dimensional crossed module which is called crossed square in (Guin Walery and Loday , 1981). The term crossed corner which is a pair of crossed modules was defined and its some examples were given by Alp in (Alp , 1999) and (Alp , 2000) respectively. Section 2 contains some basic definitions such as crossed modules, crossed square, crossed corner and their standard examples. Section 3 includes a main theorem which gives the equivalent relation between crossed corner and crossed square