



UNDERLYING GRUPOIDS

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

Keywords: Crossed modules, Cat¹-groups, underlying grupoids.

ABSTRACT

In this paper we describe a package XMOD (Wensley and Alp,1993) of functions for computing with crossed modules, their morphisms and derivations; cat^1 -groups, their morphisms and sections, written using the sf GAP (Schönert , 1993) group theory programming language. We have also enumerated the isomorphism classes of cat^1 -groups in (Alp ,1997) and (Alp, Wensley ,1997) and (Alp , 1997) We gave the application algorithms and some mathematical results on cat^1 -group structures in (Alp , 1998) . We also made a computational comment on pre-crossed modules, pre- cat^1 -groups and underlying grupoids in this paper.

ÖZET

Bu makalede GAP programının ortak paketi XMod () tanımlamanın yanı sıra Section ların GAP programına uygulanması incelenmiştir.