

GAwxM version 2 - glossary of extrinsic functions

wxMaxima is a front-end for Maxima, a Computer Algebra System.

Within wxMaxima, a “software program” i.e. a sequence of maxima commands is held in an “active document”. It is a type of notebook where the documentation is interspersed with the mathematical code.

Maxima, and hence wxMaxima, have many *intrinsic* functions, but the distinction is made here with the *extrinsic* functions that have been created specifically for Geometric Algebra using wxMaxima (GAwxM). Below is a list of the names of the function files with the functions contained within them.

gafns1.wxm

list2blade, basesp, bladep, bldpwr, geompp, compmp

gafns2.wxm

basespinn, bladepinn, bldpwrinn, geomppinn

gafns3.wxm

basespout, bladepout, bldpwrout, geomppout

gafns4.wxm

grader, makemultivec, makelistgrademv, makeunitarymv

gafns5.wxm

extract, mvrev, scalarp, normod, lst2bldouter, reciproc, lst2vecouter, reciproc

gafns6.wxm

arglst, bldexp, mvexp, pauser

gcfns1.wxm

mvgrad, mvdiv, mvcurl

gcfns2.wxm

mvderiv, lstmvcrd, makemvcrd, lstvector, makevector

gcfns3.wxm

lst2outer, reciprocM, vectordelM

The files may be opened (carefully) under wxMaxima to examine references to their development files and the usage of the functions. The function files themselves should not be run (executed).

There is also gafns0.wxm for definition and precedence of the infix operators, and their association with some of the extrinsic functions in the earlier files above.