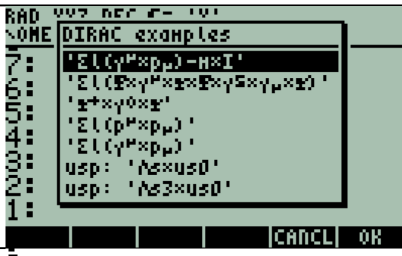
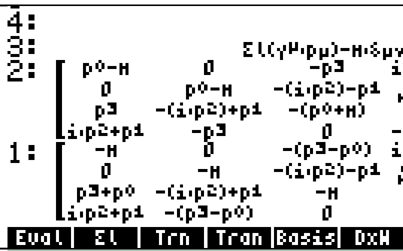
SMAT

DIRAC:
Dex: examples (1s)

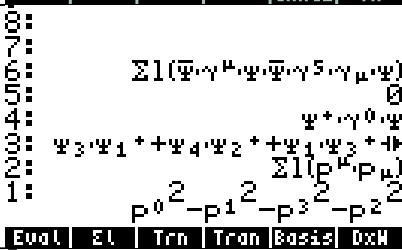
Eval: matrix γ.p-m in Dirac basis, Weyl basis (1s)

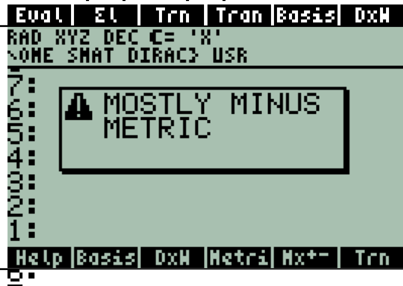




DIRAC:
Eval various expressions (1s)

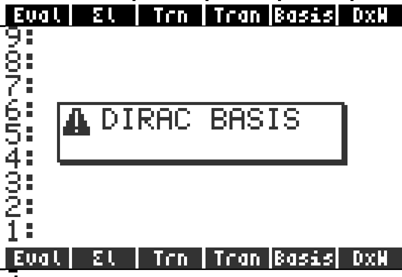
Metric?

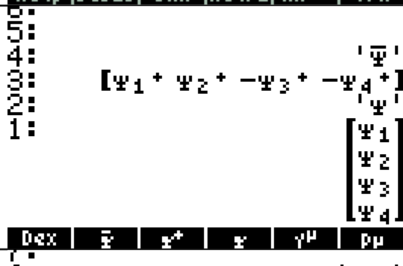




DIRAC:
Basis: displays current basis,
DxW: switches from Dirac to Weyl and back (1s)

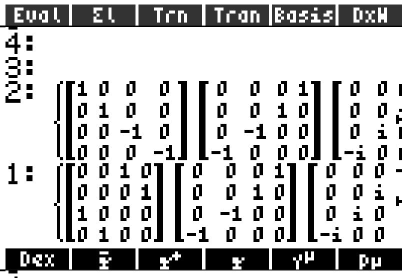
wavefunctions (1s)

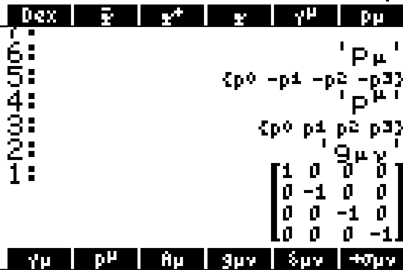




DIRAC:
matrices γ in Dirac, Weyl basis (0.1s)

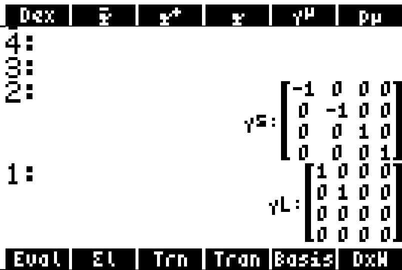
p_μ, p^μ, $g_{\mu\nu}$ (1s)

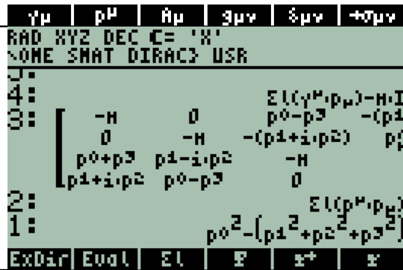




DIRAC:
matrices γ5, γL in Weyl basis (0.1s)

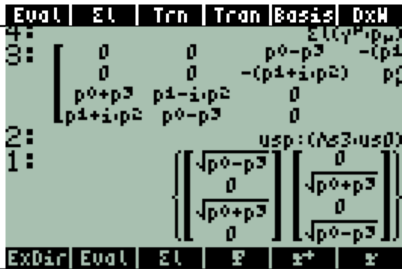
Evaluate expressions

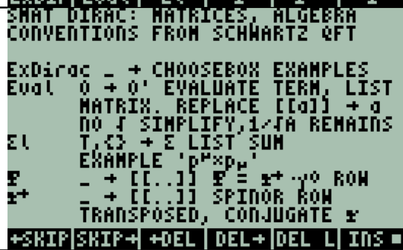




DIRAC:
Evaluate expressions

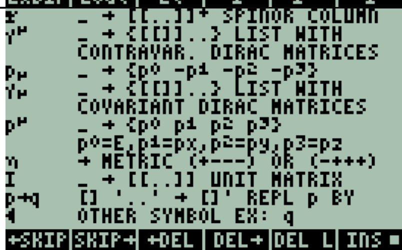
Help





DIRAC:
Help

Help

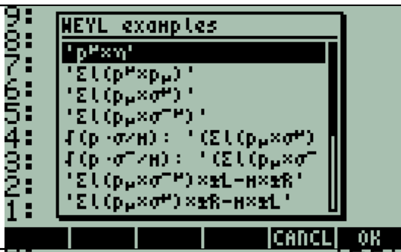


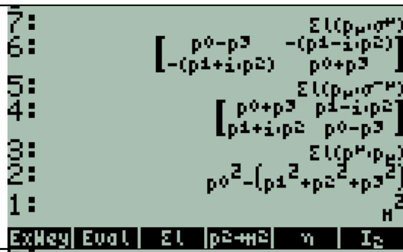
DIRAC:
Help

Help

WEYL:
Examples

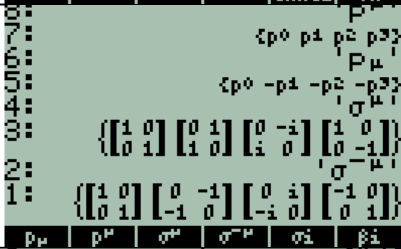
Evaluate





WEYL:
Examples

Msqrt: squareroot of matrix

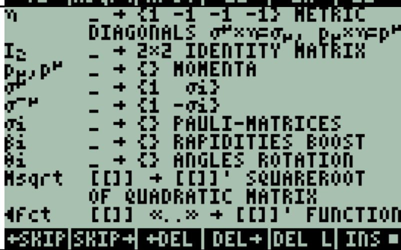


WEYL:
Mfct: exponential of matrix

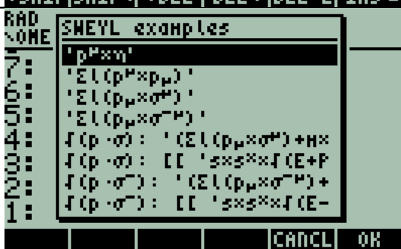
Help

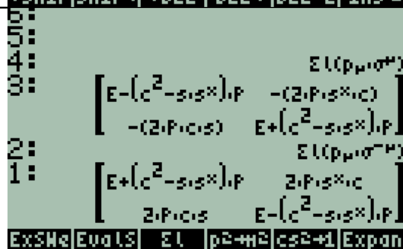
WEYL:
Help

Help

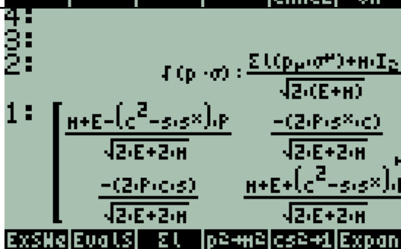


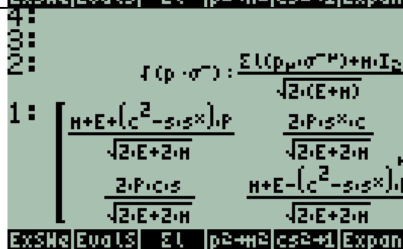
SWEYL:
Weyl matrices in
Spherical coordinates





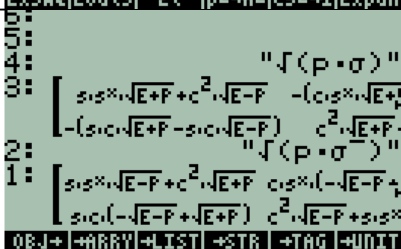
SWEYL:

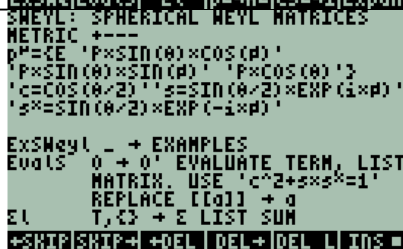




SWEYL:
Help

Help

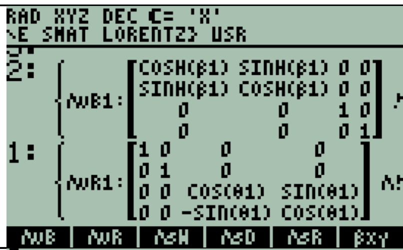


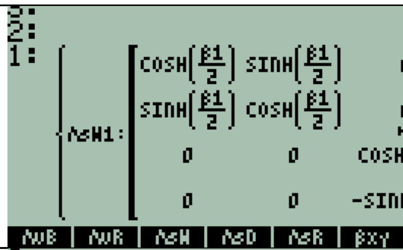


SWEYL:
Help

LORENTZ:
vector boosts
vector rotations

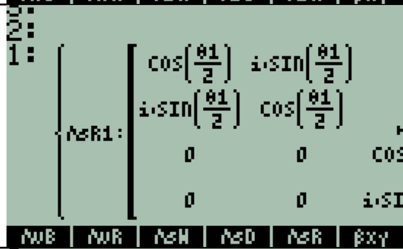
spinor boosts (Weyl repr.)

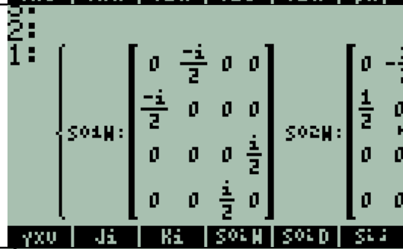




LORENTZ:
spinor rotations

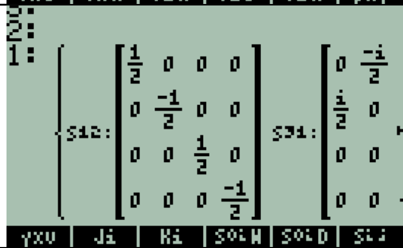
infinitesimal spinor boosts





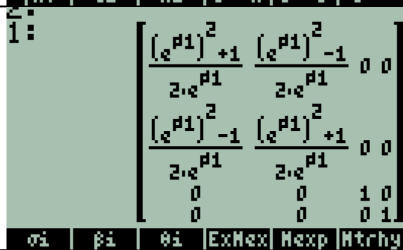
LORENTZ:
infinitesimal spinor rotations

example for matrix
exponential



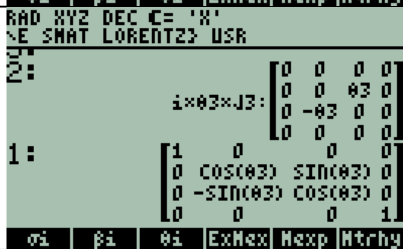
LORENTZ:
Mexp: matrix exponential

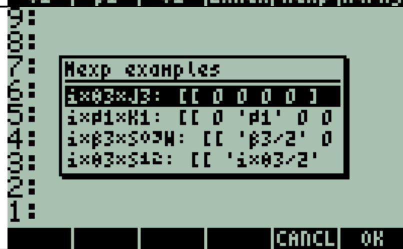
Mtrhyp: to hyperbolic



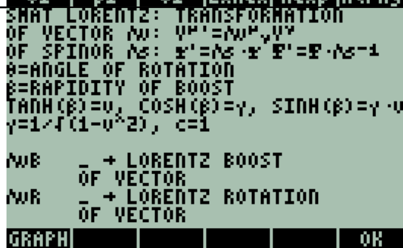
LORENTZ:
Mexp rotation

ExMexp: examples

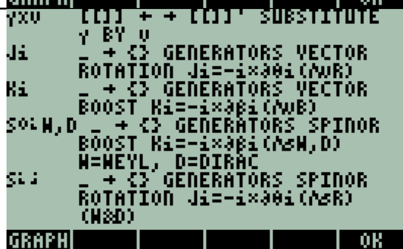


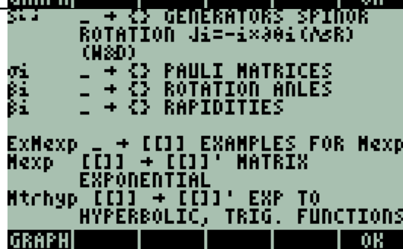


LORENTZ:
help



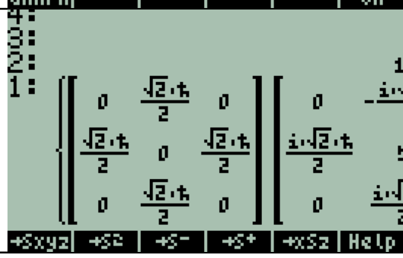
LORENTZ:
help





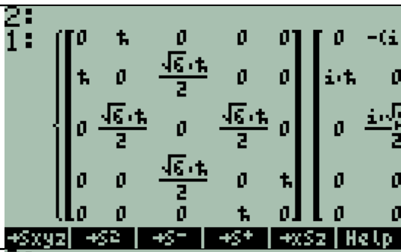
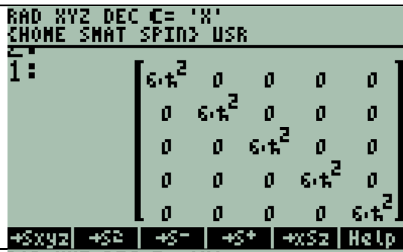
SPIN:
spin matrix ->Sxyz (s=1/2)

spin matrix ->Sxyz (s=1)



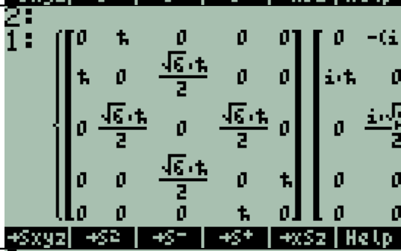
SPIN:
spin matrix ->Sxyz (s=2)

->S2 (s=2)

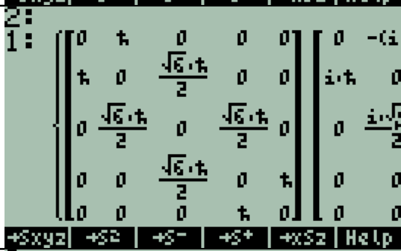
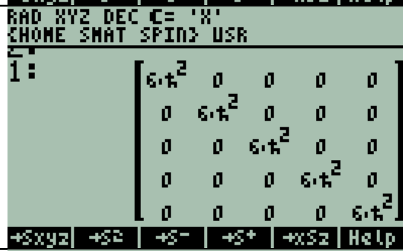
SPIN:
spin matrix ->Sxyz (s=2)

->S2 (s=2)

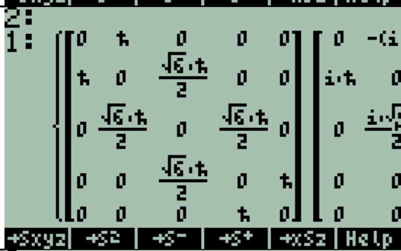
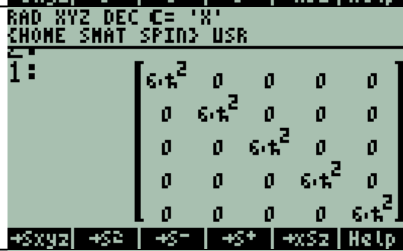
SPIN:
spin matrix ->Sxyz (s=2)

->S2 (s=2)

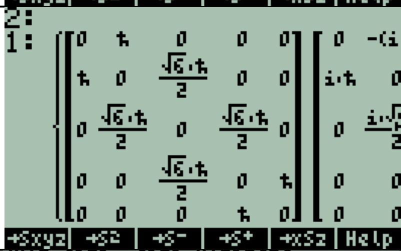
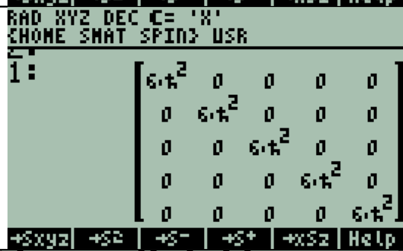
SPIN:
spin matrix ->Sxyz (s=2)

->S2 (s=2)

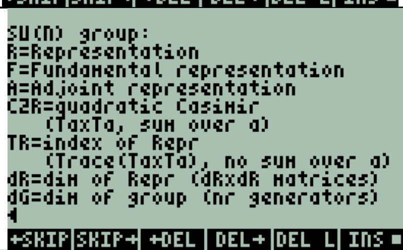
SPIN:
spin matrix ->Sxyz (s=2)

->S2 (s=2)

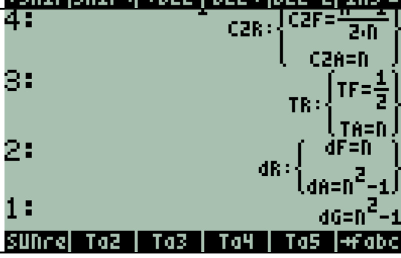
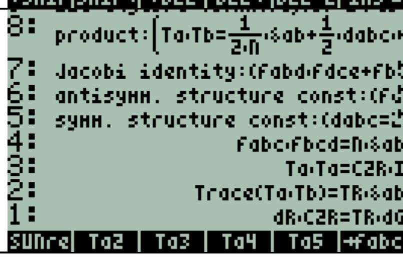
 

SPIN:
help

SUN:
InfoSUN

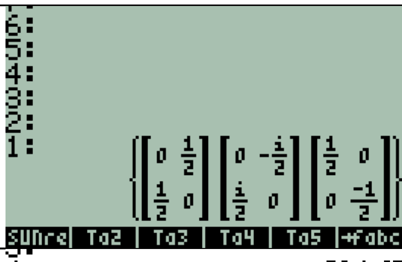


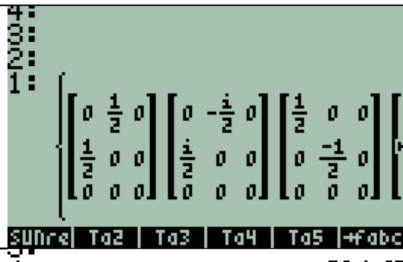
SUN:
InfoSUN

SUN:
Ta2: generators SU(2)

Ta3: generators SU(3)





SUN:
->fijk: antisymmetric structure coefficient (1s)

->dijk: symmetric structure coefficient (1s)

SUN:
fijk: antisymmetric structure coefficients of SU(3)

dijk: symmetric structure coefficients of SU(3)

SUN:
help