```
> restart:
> with(DifferentialGeometry):
> with(Tools):with(LinearAlgebra):
> DGsetup([w,x,y,z,z1],[a,h,h1],frame1,verbose);
```

The following coordinates have been protected:

$[w, x, y, z, z1, a, h, h1]$

The following vector fields have been defined and protected:

$[D\_w, D\_x, D\_y, D\_z, D\_z1, D\_a, D\_h, D\_h1]$

The following differential 1-forms have been defined and protected:

$[dw, dx, dy, dz, dz1, da, dh, dh1]$

frame name: frame1 **(1)**

Une procédure de dérivation:

```
> Der:=proc(x) local y; y:=op(1,x): if (type(x,`+`)=true) then add(Der(op(i,x)),i=1
  ..nops(x)) elif
                (type(x,`*`)=true) then expand(x/y·Der(y)+y·Der(x/y)) elif
                (type(x,`^`)=true) then op(2,x)·y^(op(2,x)-1)·Der(y) elif
               ((type(x,function)=true) or (type(x,symbol)=true)) then R(x)·W[1]
  +S(x)·W[2]+Tau(x)·W[3]+L(x)·W[4]+L#(x)·W[5]
                  else 0 fi end proc:
```

Les fonctions L et L^#, Tau, S, et R:

```
> L:=proc(x) local y; y:=op(1,x): if (type(x,`+`)=true) then add(L(op(i,x)),i=1
  ..nops(x)) elif
                (type(x,`*`)=true) then expand(L(y)·x/y+y·L(x/y)) elif
                (type(x,`^`)=true) then op(2,x)·y^(op(2,x)-1)·L(y) elif
                (type(x,function)=true) then 'L'(x) elif
                (type(x,symbol)=true) then 'L'(x) else 0 fi end proc:
```

```
> L#:=proc(x) local y; y:=op(1,x): if (type(x,`+`)=true) then add(L#(op(i,x)),i=1
  ..nops(x)) elif
                (type(x,`*`)=true) then expand(L#(y)·x/y+y·L#(x/y)) elif
                (type(x,`^`)=true) then op(2,x)·y^(op(2,x)-1)·L#(y) elif
                (type(x,function)=true) then 'L#(x)' elif
                (type(x,symbol)=true) then 'L#'(x) else 0 fi end proc:
```

```
> S:=proc(x) local y; y:=op(1,x): if (type(x,`+`)=true) then add(S(op(i,x)),i=1
  ..nops(x)) elif
                (type(x,`*`)=true) then expand(S(y)·x/y+y·S(x/y)) elif
                (type(x,`^`)=true) then op(2,x)·y^(op(2,x)-1)·S(y) elif
                (type(x,function)=true) then 'S'(x) elif
```

```
                    (type(x, symbol) = true)    then 'S'(x) else 0 fi end proc:
> R := proc(x) local y; y := op(1, x) : if (type(x, `+`) = true) then add(R(op(i, x)), i = 1
      .. nops(x)) elif
                    (type(x, `*`) = true) then expand(R(y)·x/y + y·R(x/y)) elif
                    (type(x, `^`) = true) then op(2, x)·y^(op(2, x) - 1)·R(y) elif
                    (type(x, function) = true) then 'R'(x) elif
                    (type(x, symbol) = true)    then 'R'(x) else 0 fi end proc:
> Tau := proc(x) I·(L(L#(x)) - L#(L(x))) end proc:
> B# := 1/B : A# := -B#·A :
>
```

On a normalisé: d=a*D0 et g= a^2*G0

Le nouveau coframe initial (tilde, désigné par X), s'exprime en fonction du précédent (chech, désigné par U) par la relation X:=p.U.
où p est la matrice:

```
> p := Matrix([[1, 0, 0, 0, 0], [0, 1, 0, 0, 0], [G0, 0, 1, 0, 0], [0, D0, 0, 1, 0], [0, D1, 0, 0,
      1]]) :
> pinv := MatrixInverse(p) :
  U := pinv.Vector([X[1], X[2], X[3], X[4], X[5]]) :
```

On a effectué les normalisations suivantes:
b= a B0 ; c=a^2 C0 ; f=a^3 F0

Le nouveau coframe initial (chech, désigné par U), s'exprime en fonction du précédent (chapeau, désigné par V) par la relation U:=n.V.
où n est la matrice:

```
frame1 > n := Matrix([[1, 0, 0, 0, 0], [F0, 1, 0, 0, 0], [0, C0, 1, 0, 0], [0, 0, B0,
      1, 0], [B1·B·exp3, B1·B^(1/2)·A#, B1, 0, 1]]) :
frame1 > ninv := MatrixInverse(n) :
frame1 > V := ninv.Vector([U[1], U[2], U[3], U[4], U[5]]) :
frame1 >
```

Le coframe chapeau, désigné par V, s'exprime en fonction du coframe initial, W, par la relation V:=m.W.

```
frame1 > m := Matrix([[B^(-1), 0, 0, 0, 0], [0, B^(-1/2), 0, 0, 0], [0, 0, 1, 0, 0], [0, 0, 0,
      B^(-1/2), 0], [0, 0, 0, 0, B^(1/2)]]) :
frame1 > minv := MatrixInverse(m) :
frame1 > W := minv.Vector([V[1], V[2], V[3], V[4], V[5]]) :
```

On donne ensuite la matrice de groupe:

```
frame2 > Ma := Matrix([[a^4, 0, 0, 0, 0], [0, a^3, 0, 0, 0], [0, 0, a^2, 0, 0], [h, 0,
         0, a, 0], [h1, 0, 0, 0, a]]);
```

$$Ma := \begin{bmatrix} a^4 & 0 & 0 & 0 & 0 \\ 0 & a^3 & 0 & 0 & 0 \\ 0 & 0 & a^2 & 0 & 0 \\ h & 0 & 0 & a & 0 \\ h1 & 0 & 0 & 0 & a \end{bmatrix} \quad (2)$$

```
frame1 > MaInv := MatrixInverse(Ma) :
frame1 > evalDG(ExteriorDerivative(Ma).MaInv);
```

$$\begin{bmatrix} \frac{4\,da}{a} & -\frac{0\,dw\,h}{a^5} & -\frac{0\,dw\,h1}{a^5} & \frac{0\,dw}{a^3} & \frac{0\,dw}{a^2} & \frac{0\,dw}{a} & \frac{0\,dw}{a} \\ \frac{0\,dw}{a^4} & -\frac{0\,dw\,h}{a^5} & -\frac{0\,dw\,h1}{a^5} & \frac{3\,da}{a} & \frac{0\,dw}{a^2} & \frac{0\,dw}{a} & \frac{0\,dw}{a} \\ \frac{0\,dw}{a^4} & -\frac{0\,dw\,h}{a^5} & -\frac{0\,dw\,h1}{a^5} & \frac{0\,dw}{a^3} & \frac{2\,da}{a} & \frac{0\,dw}{a} & \frac{0\,dw}{a} \\ \frac{dh}{a^4} & -\frac{da\,h}{a^5} & -\frac{0\,dw\,h1}{a^5} & \frac{0\,dw}{a^3} & \frac{0\,dw}{a^2} & \frac{da}{a} & \frac{0\,dw}{a} \\ \frac{dh1}{a^4} & -\frac{0\,dw\,h}{a^5} & -\frac{da\,h1}{a^5} & \frac{0\,dw}{a^3} & \frac{0\,dw}{a^2} & \frac{0\,dw}{a} & \frac{da}{a} \end{bmatrix} \quad (3)$$

On obtient la liste des formes de Maurer Cartan:

```
frame2 > t[1] := da/a :
frame1 > t[2] := -h*da/a^5 + dh/a^4 :
frame1 > t[3] := dh1/a^4 - da*h1/a^5 :
frame1 >
frame1 > FD := FrameData([t[1], t[2], t[3], dw, dx, dy, dz, dz1], frame2) :
frame1 > DGsetup(FD, [E], [alpha[1], alpha[2], alpha[3], tau, sigma, rho, zeta,
         zeta#], verbose) :
```

The following coordinates have been protected:

$$[w, x, y, z, z1, a, h, h1]$$

The following vector fields have been defined and protected:

$$[E1, E2, E3, E4, E5, E6, E7, E8]$$

The following differential 1-forms have been defined and protected:

$$[\alpha_1, \alpha_2, \alpha_3, \tau, \sigma, \rho, \zeta, \zeta^{\#}] \quad (4)$$

Le coframe 'relevé' est noté Y. Il est relié au coframe de base U par la relation Y:=Ma.X.

```
frame2 > Y := Vector( [tau, sigma, rho, zeta, ζ#] ) :
frame2 > X := MaInv.Y:
```
Les equations de courbure sur les W[i] sont connues:
```
M > dW[1] := evalDG(Tr·(W[1]&wedge W[2]) + Qr·(W[1]&wedge W[3]) + K·(W[1]
      &wedge W[5]) + G·(W[1] &wedge W[4]) + Nr·(W[2] &wedge W[3]) + B
      ·(W[2] &wedge W[5]) + (W[2] &wedge W[4]) ) :
M > dW[2] := evalDG(Sr·(W[1]&wedge W[2]) + Pr·(W[1]&wedge W[3]) + J·(W[1]
      &wedge W[5]) + F·(W[1] &wedge W[4]) + Mr·(W[2] &wedge W[3])
      + (L(B) + A)·(W[2] &wedge W[5]) + B·(W[3] &wedge W[5]) + (W[3]
      &wedge W[4])) :
M > dW[3] := evalDG(Rr·(W[1]&wedge W[2]) + OR·(W[1]&wedge W[3]) + H·(W[1]
      &wedge W[5]) + E·(W[1] &wedge W[4]) + Lr·(W[2] &wedge W[3]) + L(A)
      ·(W[2] &wedge W[5]) + A·(W[3] &wedge W[5]) + I·(W[4] &wedge W[5])) :
frame2 >
frame2 >
```
On en a déjà déduit les équations de courbure du coframe initial chapeau (V) à l'étape précédente:
```
frame2 > dV[1] := evalDG(B^-1·dW[1] + (Der(B^-1) &wedge W[1])) :
frame2 > dV[2] := evalDG(B^(-1/2)·dW[2] + (Der(B^(-1/2)) &wedge W[2])) :
frame2 > dV[3] := dW[3]:
frame2 > dV[4] := Der(B^(-1/2)) &wedge W[4]:
frame2 > dV[5] := Der(B^(1/2)) &wedge W[5]:
```
Les équations de courbures du coframe U s'en déduisent:
```
frame2 > dU[1] := evalDG(dV[1]) :
frame2 > dU[2] := evalDG(dV[2] + (Der(F0)&wedge V[1]) + F0·dV[1]) :
frame2 > dU[3] := evalDG(dV[3] + (Der(C0) &wedge V[2]) + C0·dV[2]) :
frame2 > dU[4] := evalDG(dV[4] + (Der(B0) &wedge V[3]) + B0· dV[3]) :
frame2 > dU[5] := evalDG(dV[5] + (Der(B1) &wedge V[3]) + B1·dV[3]
            + (Der(B1·A#·B^(1/2)) &wedge V[2]) + B1·A#·B^(1/2)·dV[2]
          + (Der(B1·B·exp3) &wedge V[1]) + B1·B·exp3·dV[1]) :
```
Les équations de courbures du coframe X s'en déduisent:
```
frame2 > dX[1] := evalDG(dU[1]) :
frame2 > dX[2] := evalDG(dU[2]) :
frame2 > dX[3] := evalDG(dU[3] + (Der(G0)&wedge U[1]) + G0·dU[1]) :
frame2 > dX[4] := evalDG(dU[4] + (Der(D0) &wedge U[2]) + D0· dU[2]) :
frame2 > dX[5] := evalDG(dU[5] + (Der(D1) &wedge U[2]) + D1· dU[2]) :
```
On peut maintenant calculer les équations de courbure du coframe 'relevé' :
```
frame2 > Omega := map(evalDG, Ma.Vector( [dX[1], dX[2], dX[3], dX[4],
      dX[5]])) :
```

```
frame2 > Mat := map(evalDG, (ExteriorDerivative(Ma).MaInv)) :
frame2 > Mat2 := Mat &MatrixWedge Y:
frame2 > SE := map(evalDG, (Mat2 &MatrixPlus Omega)) :
frame2 > List := GenerateForms([alpha[1], alpha[2], alpha[3], tau, sigma, rho,
             zeta, ζ#], 2) :
frame2 > Torsion :=proc(S, i, j) local k, X; k := 8·(i − 1) − (i·(i − 1))/2 + j − i; X
             := GetComponents(S, List); expand(X[k]); end proc:
frame2 > result :=proc(l) local k, t, X; X := 0 : t := expand(GetComponents(l,
             List)) : for k from 1 to 28 do X := X + t[k]·List[k] od; X; end proc:
frame1 > result(SE[1]);
```

$$4\,\alpha_1 \wedge \tau + \left(-\frac{L^{\#}(B)\,D1}{a^3\,B^{3/2}} + \frac{L^{\#}(B)\,B1\,A}{a^3\,B^2} + \frac{L^{\#}(B)\,B1\,C0}{a^3\,B^{3/2}} - \frac{L(B)\,D0}{a^3\sqrt{B}} + \frac{L(B)\,B0\,C0}{a^3\sqrt{B}} \right.$$
$$+ \frac{\mathrm{I}\,C0\,L^{\#}(L(B))}{a^3\,B} - \frac{\mathrm{I}\,C0\,L(L^{\#}(B))}{a^3\,B} + \frac{S(B)}{a^3\sqrt{B}} + \frac{h}{a^4} - \frac{B0\,G0}{a^3} + \frac{F0\,D0}{a^3} + \frac{h1}{a^4}$$
$$- \frac{B1\,G0}{a^3} + \frac{B\,B1\,exp3}{a^3} + \frac{F0\,D1}{a^3} + \frac{Nr\,G0}{a^3\sqrt{B}} - \frac{\sqrt{B}\,G\,D0}{a^3} + \frac{\sqrt{B}\,G\,B0\,C0}{a^3}$$
$$\left. - \frac{K\,D1}{a^3\sqrt{B}} + \frac{K\,B1\,A}{a^3\,B} + \frac{K\,B1\,C0}{a^3\sqrt{B}} - \frac{Qr\,C0}{a^3} + \frac{\sqrt{B}\,Tr}{a^3} \right) \tau \wedge \sigma + \left(-\frac{L^{\#}(B)\,B1}{a^2\,B^{3/2}} \right.$$
$$- \frac{L(B)\,B0}{a^2\sqrt{B}} + \frac{\mathrm{I}\,L(L^{\#}(B))}{a^2\,B} - \frac{\mathrm{I}\,L^{\#}(L(B))}{a^2\,B} + \frac{F0\,B0}{a^2} + \frac{F0\,B1}{a^2} - \frac{Nr\,F0}{a^2\sqrt{B}}$$
$$\left. - \frac{\sqrt{B}\,G\,B0}{a^2} - \frac{K\,B1}{a^2\sqrt{B}} + \frac{Qr}{a^2} \right) \tau \wedge \rho + \left(\frac{L(B)}{a\sqrt{B}} - \frac{F0}{a} + \frac{\sqrt{B}\,G}{a} \right) \tau \wedge \zeta$$
$$+ \left(\frac{L^{\#}(B)}{a\,B^{3/2}} - \frac{F0}{a} + \frac{K}{a\sqrt{B}} \right) \tau \wedge \zeta^{\#} + \left(-\frac{B0}{a} - \frac{B1}{a} + \frac{Nr}{a\sqrt{B}} \right) \sigma \wedge \rho + \sigma \wedge \zeta$$
$$+ \sigma \wedge \zeta^{\#} \tag{5}$$

```
frame2 > result(SE[2]);
```

$$3\,\alpha_1 \wedge \sigma + \left(-\frac{\sqrt{B}\,F0\,G\,D0}{a^4} - \frac{F0\,K\,D1}{a^4\sqrt{B}} - \frac{1}{2}\,\frac{L^{\#}(B)\,B1\,G0}{a^4\,B^{3/2}} + \frac{1}{2}\,\frac{L^{\#}(B)\,B1\,exp3}{a^4\sqrt{B}} \right.$$
$$- \frac{C0\,F0\,D0}{a^4} - \frac{B\,C0\,B1\,exp3}{a^4} - \frac{C0\,F0\,D1}{a^4} + \frac{B\,F\,B0\,C0}{a^4} + \frac{J\,B1\,C0}{a^4} - \frac{F0\,B0\,G0}{a^4}$$
$$- \frac{F0\,B1\,G0}{a^4} + \frac{B\,F0\,B1\,exp3}{a^4} - \frac{F0\,Qr\,C0}{a^4} - \frac{2\,G0\,B1\,A}{a^4\sqrt{B}} + \frac{A\,F0\,D1}{a^4\sqrt{B}}$$
$$\left. - \frac{L^{\#}(F0)\,B1\,C0}{a^4\sqrt{B}} - \frac{\sqrt{B}\,L(F0)\,B0\,C0}{a^4} - \frac{1}{2}\,\frac{F0\,L^{\#}(B)\,D1}{a^4\,B^{3/2}} - \frac{1}{2}\,\frac{F0\,L(B)\,D0}{a^4\sqrt{B}} \right)$$

(6)

$$-\frac{1}{2}\,\frac{L(B)\,B0\,G0}{a^4\sqrt{B}}-\frac{L(B)\,B1\,G0}{a^4\sqrt{B}}+\frac{\sqrt{B}\,L(B)\,B1\,exp3}{a^4}+\frac{L(B)\,F0\,D1}{a^4\sqrt{B}}+\frac{F0\,Nr\,G0}{a^4\sqrt{B}}$$

$$+\frac{J\,B1\,A}{a^4\sqrt{B}}+\frac{\sqrt{B}\,A\,B1\,exp3}{a^4}-\frac{L^{\#}(F0)\,B1\,A}{a^4\,B}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,G0}{a^4\,B}$$

$$+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,G0}{a^4\,B}+\frac{B\,Sr}{a^4}-\frac{1}{2}\,\frac{R(B)}{a^4}-\frac{\sqrt{B}\,S(F0)}{a^4}-\frac{J\,D1}{a^4}+\frac{\sqrt{B}\,F0\,Tr}{a^4}$$

$$+\frac{F0^2\,D0}{a^4}+\frac{F0^2\,D1}{a^4}+\frac{1}{2}\,\frac{L^{\#}(B)\,h1}{a^5\,B^{3/2}}+\frac{S(B)\,F0}{a^4\sqrt{B}}+\frac{F0\,h}{a^5}+\frac{F0\,h1}{a^5}+\frac{1}{2}\,\frac{L(B)\,h}{a^5\sqrt{B}}$$

$$+\frac{L(B)\,h1}{a^5\sqrt{B}}+\frac{A\,h1}{a^5\sqrt{B}}+\frac{\mathrm{I}\,C0\,L\left(L^{\#}(F0)\right)}{a^4}-\frac{\mathrm{I}\,C0\,L^{\#}(L(F0))}{a^4}-\frac{\sqrt{B}\,Pr\,C0}{a^4}$$

$$+\frac{L^{\#}(F0)\,D1}{a^4\sqrt{B}}+\frac{\sqrt{B}\,L(F0)\,D0}{a^4}-\frac{C0\,h}{a^5}-\frac{C0\,h1}{a^5}+\frac{G0\,D0}{a^4}+\frac{G0\,D1}{a^4}+\frac{Mr\,G0}{a^4}$$

$$-\frac{B\,F\,D0}{a^4}+\frac{\sqrt{B}\,F0\,G\,B0\,C0}{a^4}+\frac{F0\,K\,B1\,C0}{a^4\sqrt{B}}+\frac{F0\,K\,B1\,A}{a^4\,B}+\frac{F0\,L(B)\,B0\,C0}{a^4\sqrt{B}}$$

$$+\frac{L^{\#}(B)\,B1\,A\,F0}{a^4\,B^2}+\frac{L^{\#}(B)\,B1\,C0\,F0}{a^4\,B^{3/2}}-\frac{\mathrm{I}\,F0\,C0\,L\left(L^{\#}(B)\right)}{a^4\,B}+\frac{\mathrm{I}\,F0\,C0\,L^{\#}(L(B))}{a^4\,B}\Bigg)$$

$$\tau\wedge\sigma+\Bigg(-\frac{\mathrm{I}\,L\left(L^{\#}(F0)\right)}{a^3}+\frac{\mathrm{I}\,L^{\#}(L(F0))}{a^3}+\frac{F0\,B1\,L(B)}{a^3\sqrt{B}}+\frac{F0^2\,B0}{a^3}+\frac{F0^2\,B1}{a^3}$$

$$-\frac{F0^2\,Nr}{a^3\sqrt{B}}+\frac{F0\,Qr}{a^3}+\frac{\sqrt{B}\,Pr}{a^3}-\frac{\sqrt{B}\,F0\,G\,B0}{a^3}-\frac{F0\,K\,B1}{a^3\sqrt{B}}+\frac{2\,B1\,A\,F0}{a^3\sqrt{B}}$$

$$-\frac{1}{2}\,\frac{F0\,L^{\#}(B)\,B1}{a^3\,B^{3/2}}+\frac{B\,B1\,exp3}{a^3}-\frac{Mr\,F0}{a^3}-\frac{B\,F\,B0}{a^3}-\frac{J\,B1}{a^3}-\frac{\frac{1}{2}\,\mathrm{I}\,F0\,L^{\#}(L(B))}{a^3\,B}$$

$$+\frac{\frac{1}{2}\,\mathrm{I}\,F0\,L\left(L^{\#}(B)\right)}{a^3\,B}+\frac{L^{\#}(F0)\,B1}{a^3\sqrt{B}}+\frac{\sqrt{B}\,L(F0)\,B0}{a^3}+\frac{h}{a^4}+\frac{h1}{a^4}$$

$$-\frac{1}{2}\,\frac{F0\,L(B)\,B0}{a^3\sqrt{B}}\Bigg)\tau\wedge\rho+\Bigg(\frac{1}{2}\,\frac{F0\,L(B)}{a^2\sqrt{B}}-\frac{F0^2}{a^2}+\frac{\sqrt{B}\,F0\,G}{a^2}-\frac{\sqrt{B}\,L(F0)}{a^2}$$

$$-\frac{G0}{a^2}+\frac{C0\,F0}{a^2}+\frac{B\,F}{a^2}\Bigg)\tau\wedge\zeta+\Bigg(\frac{1}{2}\,\frac{L^{\#}(B)\,F0}{a^2\,B^{3/2}}-\frac{F0^2}{a^2}+\frac{F0\,K}{a^2\sqrt{B}}-\frac{L^{\#}(F0)}{a^2\sqrt{B}}$$

$$-\frac{G0}{a^2}+\frac{C0\,F0}{a^2}-\frac{F0\,L(B)}{a^2\sqrt{B}}-\frac{A\,F0}{a^2\sqrt{B}}+\frac{J}{a^2}\Bigg)\tau\wedge\zeta^{\#}+\Bigg(-\frac{F0\,B0}{a^2}-\frac{F0\,B1}{a^2}$$

$$+\frac{Nr\,F0}{a^2\sqrt{B}}-\frac{1}{2}\,\frac{L^{\#}(B)\,B1}{a^2\,B^{3/2}}-\frac{1}{2}\,\frac{L(B)\,B0}{a^2\sqrt{B}}+\frac{\frac{1}{2}\,\mathrm{I}\,L(L^{\#}(B))}{a^2\,B}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))}{a^2\,B}$$

$$+\frac{D0}{a^2}+\frac{D1}{a^2}-\frac{2\,B1\,A}{a^2\sqrt{B}}-\frac{B1\,L(B)}{a^2\sqrt{B}}+\frac{Mr}{a^2}\Bigg)\sigma\wedge\rho+\Bigg(\frac{F0}{a}+\frac{1}{2}\,\frac{L(B)}{a\sqrt{B}}$$

$$-\frac{C0}{a}\Bigg)\sigma\wedge\zeta+\Bigg(\frac{F0}{a}+\frac{1}{2}\,\frac{L^{\#}(B)}{a\,B^{3/2}}-\frac{C0}{a}+\frac{L(B)}{a\sqrt{B}}+\frac{A}{a\sqrt{B}}\Bigg)\sigma\wedge\zeta^{\#}+\rho\wedge\zeta$$

$$+\rho\wedge\zeta^{\#}$$

frame2 > *result*(*SE*[3]);

$$2\,\alpha_1\wedge\rho+\Bigg(-\frac{\sqrt{B}\;G0\,G\,D0}{a^5}-\frac{G0\,K\,D1}{a^5\sqrt{B}}+\frac{C0\,G0\,D0}{a^5}+\frac{C0\,G0\,D1}{a^5}+\frac{C0\,Mr\,G0}{a^5}\qquad(7)$$

$$-\frac{B\,C0\,F\,D0}{a^5}-\frac{C0\,J\,D1}{a^5}-\frac{C0^2\,F0\,D0}{a^5}-\frac{B\,C0^2\,B1\,exp3}{a^5}-\frac{C0^2\,F0\,D1}{a^5}$$

$$+\frac{B\,F\,B0\,C0^2}{a^5}+\frac{J\,B1\,C0^2}{a^5}-\frac{L(A)\,B1\,G0}{a^5}+\frac{B\,L(A)\,B1\,exp3}{a^5}+\frac{L(A)\,F0\,D1}{a^5}$$

$$+\frac{H\,B1\,A}{a^5}-\frac{G0\,B1\,A^2}{a^5\,B}+\frac{1}{2}\,\frac{C0\,L(B)\,h}{a^6\sqrt{B}}+\frac{C0\,L(B)\,h1}{a^6\sqrt{B}}+\frac{1}{2}\,\frac{C0\,L^{\#}(B)\,h1}{a^6\,B^{3/2}}$$

$$+\frac{A\,G0\,D1}{a^5\sqrt{B}}+\frac{B^{3/2}\,E\,B0\,C0}{a^5}+\frac{\sqrt{B}\;H\,B1\,C0}{a^5}-\frac{L^{\#}(G0)\,B1\,A}{a^5\,B}-\frac{L^{\#}(G0)\,B1\,C0}{a^5\sqrt{B}}$$

$$-\frac{\sqrt{B}\;L(G0)\,B0\,C0}{a^5}-\frac{F0\,L^{\#}(C0)\,D1}{a^5\sqrt{B}}-\frac{\sqrt{B}\;L^{\#}(C0)\,B1\,exp3}{a^5}-\frac{\sqrt{B}\;F0\,L(C0)\,D0}{a^5}$$

$$+\frac{L^{\#}(C0)\,B1\,G0}{a^5\sqrt{B}}+\frac{\sqrt{B}\;L(C0)\,B0\,G0}{a^5}-\frac{G0\,L^{\#}(B)\,D1}{a^5\,B^{3/2}}-\frac{G0\,L(B)\,D0}{a^5\sqrt{B}}+\frac{G0\,F0\,D0}{a^5}$$

$$+\frac{B\,G0\,B1\,exp3}{a^5}+\frac{G0\,F0\,D1}{a^5}-\frac{G0\,Qr\,C0}{a^5}-\frac{\mathrm{I}\,B0\,G0\,D1}{a^5}+\frac{\mathrm{I}\,D0\,B1\,G0}{a^5}$$

$$+\frac{\mathrm{I}\,B0\,C0\,h1}{a^6}-\frac{\mathrm{I}\,h\,B1\,C0}{a^6}-\frac{L^{\#}(C0)\,h1}{a^6\sqrt{B}}-\frac{\sqrt{B}\,L(C0)\,h}{a^6}+\frac{\sqrt{B}\,Lr\,G0}{a^5}-\frac{B^{3/2}\,E\,D0}{a^5}$$

$$-\frac{\sqrt{B}\,H\,D1}{a^5}-\frac{\sqrt{B}\,Pr\,C0^2}{a^5}+\frac{L^{\#}(G0)\,D1}{a^5\sqrt{B}}+\frac{\sqrt{B}\,L(G0)\,D0}{a^5}-\frac{C0^2\,h1}{a^6}+\frac{L(A)\,h1}{a^6}$$

$$-\frac{C0^2\,h}{a^6}-\frac{1}{2}\,\frac{C0\,R(B)}{a^5}-\frac{B\,OR\,C0}{a^5}+\frac{B\,C0\,Sr}{a^5}-\frac{G0^2\,B0}{a^5}-\frac{G0^2\,B1}{a^5}+\frac{G0\,S(B)}{a^5\sqrt{B}}$$

$$+\frac{G0^2\,Nr}{a^5\sqrt{B}}+\frac{\sqrt{B}\,G0\,Tr}{a^5}+\frac{G0\,h}{a^6}+\frac{G0\,h1}{a^6}+\frac{1}{2}\,\frac{C0\,L(B)\,B0\,G0}{a^5\sqrt{B}}$$

$$+\frac{1}{2}\,\frac{C0\,F0\,L(B)\,D0}{a^5\sqrt{B}}+\frac{1}{2}\,\frac{C0\,L^{\#}(B)\,B1\,exp3}{a^5\sqrt{B}}-\frac{C0\,L(B)\,B1\,G0}{a^5\sqrt{B}}$$

$$+\frac{\sqrt{B}\,C0\,L(B)\,B1\,exp3}{a^5}+\frac{C0\,L(B)\,F0\,D1}{a^5\sqrt{B}}+\frac{1}{2}\,\frac{C0\,L^{\#}(B)\,B1\,G0}{a^5\,B^{3/2}}$$

$$+\frac{1}{2}\,\frac{C0\,F0\,L^{\#}(B)\,D1}{a^5\,B^{3/2}}-\frac{2\,C0\,G0\,B1\,A}{a^5\sqrt{B}}+\frac{C0\,J\,B1\,A}{a^5\sqrt{B}}+\frac{G0\,K\,B1\,A}{a^5\,B}$$

$$+\frac{G0\,L^{\#}(B)\,B1\,A}{a^5\,B^2}+\frac{\sqrt{B}\,G0\,G\,B0\,C0}{a^5}+\frac{G0\,K\,B1\,C0}{a^5\sqrt{B}}-\frac{\mathrm{I}\,B\,D0\,B1\,exp3}{a^5}$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)\,G0}{a^5\,B}-\frac{\mathrm{I}\,h\,B1\,A}{a^6\sqrt{B}}+\frac{\frac{1}{2}\,\mathrm{I}\,G0\,C0\,L^{\#}(L(B))}{a^5\,B}+\frac{\mathrm{I}\,B0\,C0\,F0\,D1}{a^5}$$

$$-\frac{\mathrm{I}\,D0\,B1\,C0\,F0}{a^5}+\frac{\mathrm{I}\,h\,D1}{a^6}-\frac{\mathrm{I}\,D0\,h1}{a^6}+\frac{\mathrm{I}\,L^{\#}(L(C0))\,G0}{a^5}-\frac{\mathrm{I}\,L\left(L^{\#}(C0)\right)\,G0}{a^5}$$

$$+\frac{\mathrm{I}\,C0\,L\left(L^{\#}(G0)\right)}{a^5}-\frac{\mathrm{I}\,C0\,L^{\#}(L(G0))}{a^5}+\frac{\mathrm{I}\,B\,B0\,C0\,B1\,exp3}{a^5}-\frac{\mathrm{I}\,D0\,B1\,A\,F0}{a^5\sqrt{B}}$$

$$+\frac{\mathrm{I}\,B0\,G0\,B1\,A}{a^5\sqrt{B}}+\frac{B^{3/2}\,Rr}{a^5}-\frac{\sqrt{B}\,S(G0)}{a^5}+\frac{B\,R(C0)}{a^5}\Bigg)\,\tau\wedge\sigma+\Bigg(-\frac{L^{\#}(B)\,B1\,G0}{a^4\,B^{3/2}}$$

$$-\frac{\mathrm{I}\,L^{\#}(L(B))\,G0}{a^4\,B}+\frac{B\,C0\,B1\,exp3}{a^4}-\frac{B\,F\,B0\,C0}{a^4}-\frac{J\,B1\,C0}{a^4}+\frac{F0\,B0\,G0}{a^4}$$

$$+\frac{F0\,B1\,G0}{a^4}+\frac{B\,OR}{a^4}-\frac{\mathrm{I}\,L\left(L^{\#}(G0)\right)}{a^4}+\frac{\mathrm{I}\,L^{\#}(L(G0))}{a^4}-\frac{L(B)\,B0\,G0}{a^4\sqrt{B}}$$

$$+\frac{\mathrm{I}\,L\left(L^{\#}(B)\right)\,G0}{a^4\,B}-\frac{F0\,Nr\,G0}{a^4\sqrt{B}}+\frac{\sqrt{B}\;A\,B1\,exp3}{a^4}+\frac{A\,h1}{a^5\sqrt{B}}+\frac{\sqrt{B}\;Pr\,C0}{a^4}+\frac{C0\,h}{a^5}$$

$$+\frac{C0\,h1}{a^5}+\frac{1}{2}\,\frac{F0\,L(B)\,B0\,C0}{a^4\sqrt{B}}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,C0\,F0}{a^4\,B^{3/2}}+\frac{2\,C0\,B1\,A\,F0}{a^4\sqrt{B}}$$

$$+\frac{C0\,F0\,B1\,L(B)}{a^4\sqrt{B}}-\frac{\frac{1}{2}\,\mathrm{I}\,F0\,C0\,L\left(L^{\#}(B)\right)}{a^4\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,F0\,C0\,L^{\#}(L(B))}{a^4\,B}-\frac{\mathrm{I}\,B\,B0\,B1\,exp3}{a^4}$$

$$+\frac{G0\,Qr}{a^4}+\frac{L^{\#}(G0)\,B1}{a^4\sqrt{B}}-\frac{\sqrt{B}\;Lr\,F0}{a^4}-\frac{B^{3/2}\,E\,B0}{a^4}-\frac{\sqrt{B}\;H\,B1}{a^4}+\frac{\sqrt{B}\;L(G0)\,B0}{a^4}$$

$$+\frac{\mathrm{I}\,F0\,L\left(L^{\#}(C0)\right)}{a^4}-\frac{\mathrm{I}\,F0\,L^{\#}(L(C0))}{a^4}-\frac{\mathrm{I}\,B0\,h1}{a^5}+\frac{\mathrm{I}\,B1\,h}{a^5}-\frac{C0\,Mr\,F0}{a^4}$$

$$-\frac{F0\,L^{\#}(C0)\,B1}{a^4\sqrt{B}}+\frac{B1\,A^2\,F0}{a^4\,B}+\frac{L(A)\,F0\,B1}{a^4}-\frac{\sqrt{B}\;G0\,G\,B0}{a^4}-\frac{G0\,K\,B1}{a^4\sqrt{B}}$$

$$-\frac{\sqrt{B}\;F0\,L(C0)\,B0}{a^4}-\frac{\mathrm{I}\,B0\,B1\,A\,F0}{a^4\sqrt{B}}\Bigg)\,\tau\wedge\rho+\Bigg(\frac{G0\,L(B)}{a^3\sqrt{B}}-\frac{G0\,F0}{a^3}+\frac{\sqrt{B}\;G0\,G}{a^3}$$

$$-\frac{\sqrt{B}\;L(G0)}{a^3}-\frac{1}{2}\,\frac{C0\,F0\,L(B)}{a^3\sqrt{B}}-\frac{C0\,G0}{a^3}+\frac{C0^2\,F0}{a^3}+\frac{B\,C0\,F}{a^3}+\frac{\sqrt{B}\;L(C0)\,F0}{a^3}$$

$$+\frac{\mathrm{I}\,h1}{a^4}-\frac{\mathrm{I}\,B1\,G0}{a^3}+\frac{\mathrm{I}\,B\,B1\,exp3}{a^3}+\frac{\mathrm{I}\,B1\,A\,F0}{a^3\sqrt{B}}+\frac{\mathrm{I}\,B1\,C0\,F0}{a^3}+\frac{B^{3/2}\,E}{a^3}\Bigg)\,\tau\wedge\zeta$$

$$+\Bigg(\frac{G0\,L^{\#}(B)}{a^3\,B^{3/2}}-\frac{G0\,F0}{a^3}+\frac{G0\,K}{a^3\sqrt{B}}-\frac{L^{\#}(G0)}{a^3\sqrt{B}}-\frac{1}{2}\,\frac{C0\,L^{\#}(B)\,F0}{a^3\,B^{3/2}}-\frac{C0\,G0}{a^3}$$

$$+\frac{C0^2\,F0}{a^3}-\frac{C0\,F0\,L(B)}{a^3\sqrt{B}}+\frac{C0\,J}{a^3}+\frac{L^{\#}(C0)\,F0}{a^3\sqrt{B}}+\frac{\mathrm{I}\,B0\,G0}{a^3}-\frac{\mathrm{I}\,B0\,C0\,F0}{a^3}-\frac{\mathrm{I}\,h}{a^4}$$

$$-\frac{A\,G0}{a^3\sqrt{B}}-\frac{L(A)\,F0}{a^3}+\frac{\sqrt{B}\;H}{a^3}\Bigg)\,\tau\wedge\zeta^{\#}+\Bigg(-\frac{B0\,G0}{a^3}-\frac{B1\,G0}{a^3}+\frac{Nr\,G0}{a^3\sqrt{B}}$$

$$-\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,C0}{a^3\,B^{3/2}}-\frac{1}{2}\,\frac{L(B)\,B0\,C0}{a^3\sqrt{B}}+\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)}{a^3\,B}-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L^{\#}(L(B))}{a^3\,B}$$

$$+\frac{C0\,D0}{a^3}+\frac{C0\,D1}{a^3}-\frac{2\,C0\,B1\,A}{a^3\sqrt{B}}-\frac{C0\,B1\,L(B)}{a^3\sqrt{B}}+\frac{C0\,Mr}{a^3}+\frac{L^{\#}(C0)\,B1}{a^3\sqrt{B}}$$

$$+\frac{\sqrt{B}\,L(C0)\,B0}{a^3}-\frac{\mathrm{I}\,B0\,D1}{a^3}+\frac{\mathrm{I}\,L^{\#}(L(C0))}{a^3}-\frac{\mathrm{I}\,L(L^{\#}(C0))}{a^3}+\frac{\mathrm{I}\,B0\,B1\,A}{a^3\sqrt{B}}$$

$$+\frac{\mathrm{I}\,B1\,D0}{a^3}+\frac{A\,D1}{a^3\sqrt{B}}-\frac{B1\,A^2}{a^3\,B}-\frac{L(A)\,B1}{a^3}+\frac{\sqrt{B}\,Lr}{a^3}\Bigg)\sigma\wedge\rho+\Bigg(\frac{G0}{a^2}$$

$$+\frac{1}{2}\,\frac{C0\,L(B)}{a^2\sqrt{B}}-\frac{C0^2}{a^2}-\frac{\sqrt{B}\,L(C0)}{a^2}+\frac{\mathrm{I}\,D1}{a^2}-\frac{\mathrm{I}\,B1\,A}{a^2\sqrt{B}}-\frac{\mathrm{I}\,B1\,C0}{a^2}\Bigg)\sigma\wedge\zeta+\Bigg(\frac{G0}{a^2}$$

$$+\frac{1}{2}\,\frac{C0\,L^{\#}(B)}{a^2\,B^{3/2}}-\frac{C0^2}{a^2}+\frac{C0\,L(B)}{a^2\sqrt{B}}-\frac{L^{\#}(C0)}{a^2\sqrt{B}}-\frac{\mathrm{I}\,D0}{a^2}+\frac{\mathrm{I}\,B0\,C0}{a^2}+\frac{L(A)}{a^2}\Bigg)\sigma\wedge\zeta^{\#}$$

$$+\Bigg(\frac{C0}{a}+\frac{\mathrm{I}\,B1}{a}\Bigg)\rho\wedge\zeta+\Bigg(\frac{C0}{a}-\frac{\mathrm{I}\,B0}{a}+\frac{A}{a\sqrt{B}}\Bigg)\rho\wedge\zeta^{\#}+\mathrm{I}\,\zeta\wedge\zeta^{\#}$$

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$$\alpha_1\wedge\zeta+\alpha_2\wedge\tau+\Bigg(-\frac{\mathrm{I}\,L(L^{\#}(D0))\,G0}{a^6}+\frac{\mathrm{I}\,L^{\#}(L(D0))\,G0}{a^6}+\frac{h^2}{a^8}+\frac{B\,R(D0)}{a^6} \tag{8}$$

$$-\frac{2\,B1\,A\,G0\,D0}{\sqrt{B}\,a^6}+\frac{B0\,A\,G0\,D1}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,B0\,H\,B1\,C0}{a^6}+\frac{D0\,F0\,Nr\,G0}{\sqrt{B}\,a^6}-\frac{D0\,F0\,K\,D1}{\sqrt{B}\,a^6}$$

$$+\frac{D0\,A\,F0\,D1}{\sqrt{B}\,a^6}+\frac{D0\,J\,B1\,A}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,D0\,A\,B1\,exp3}{a^6}-\frac{B0\,A\,C0\,h1}{\sqrt{B}\,a^7}+\frac{\sqrt{B}\,h\,G\,B0\,C0}{a^7}$$

$$+\frac{h\,K\,B1\,C0}{\sqrt{B}\,a^7}-\frac{1}{2}\,\frac{D0\,L(B)\,B0\,G0}{\sqrt{B}\,a^6}-\frac{1}{2}\,\frac{D0\,F0\,L^{\#}(B)\,D1}{B^{3/2}\,a^6}-\frac{1}{2}\,\frac{L^{\#}(B)\,D1\,B0\,G0}{B^{3/2}\,a^6}$$

$$+\frac{1}{2}\,\frac{L^{\#}(B)\,h1\,B0\,C0}{B^{3/2}\,a^7}-\frac{\sqrt{B}\,D0\,L(F0)\,B0\,C0}{a^6}-\frac{D0\,L^{\#}(F0)\,B1\,C0}{\sqrt{B}\,a^6}$$

$$+\frac{\sqrt{B}\,C0\,L^{\#}(B0)\,B1\,exp3}{a^6}+\frac{\sqrt{B}\,L(B0)\,D0\,C0\,F0}{a^6}+\frac{L^{\#}(B0)\,D1\,C0\,F0}{\sqrt{B}\,a^6}$$

$$+\frac{1}{2}\,\frac{h\,L^{\#}(B)\,B1\,C0}{B^{3/2}\,a^7}+\frac{h\,L(B)\,B0\,C0}{\sqrt{B}\,a^7}-\frac{L^{\#}(D0)\,B1\,C0\,F0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,L(D0)\,B0\,C0\,F0}{a^6}$$

$$+\frac{1}{2}\,\frac{h\,L^{\#}(B)\,B1\,A}{B^2\,a^7}-\frac{D0\,F0\,Qr\,C0}{a^6}-\frac{D0\,F0\,B1\,G0}{a^6}-\frac{D0\,F0\,B0\,G0}{a^6}+\frac{D0\,J\,B1\,C0}{a^6}$$

$$-\frac{B\,D0\,C0\,B1\,exp3}{a^6}+\frac{B\,D0\,F\,B0\,C0}{a^6}-\frac{B0\,G0\,B1\,A^2}{B\,a^6}+\frac{B0\,H\,B1\,A}{a^6}+\frac{h\,K\,B1\,A}{B\,a^7}$$

$$+\frac{B0\,L(A)\,F0\,D1}{a^6}+\frac{L^{\#}(B0)\,B1\,A\,G0}{B\,a^6}+\frac{B\,B0\,L(A)\,B1\,exp3}{a^6}-\frac{L^{\#}(D0)\,B1\,A\,F0}{B\,a^6}$$

$$-\frac{D0\,L^{\#}(F0)\,B1\,A}{B\,a^6}-\frac{L(B)\,D0\,B1\,G0}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,L(B)\,D0\,B1\,exp3}{a^6}+\frac{D0\,L(B)\,F0\,D1}{\sqrt{B}\,a^6}$$

$$-\frac{B0\,L(A)\,B1\,G0}{a^6}-\frac{D0\,C0\,F0\,D1}{a^6}+\frac{B\,B1\,exp3\,F0\,D0}{a^6}-\frac{\frac{1}{2}\,\mathrm{I}\,h\,C0\,L\left(L^{\#}(B)\right)}{B\,a^7}$$

$$+\frac{\frac{1}{2}\,\mathrm{I}\,h\,C0\,L^{\#}(L(B))}{B\,a^7}+\frac{\mathrm{I}\,B0^2\,C0\,F0\,D1}{a^6}+\frac{\mathrm{I}\,B0\,D0\,B1\,G0}{a^6}-\frac{\mathrm{I}\,B0\,h\,B1\,C0}{a^7}$$

$$-\frac{\mathrm{I}\,B0\,D0\,B1\,A\,F0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,B0\,A\,C0\,B1\,exp3}{a^6}-\frac{B0\,A\,C0\,F0\,D1}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,D0\,F0\,G\,B0\,C0}{a^6}$$

$$+\frac{D0\,F0\,K\,B1\,C0}{\sqrt{B}\,a^6}+\frac{D0\,F0\,K\,B1\,A}{B\,a^6}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,A\,F0\,D0}{B^2\,a^6}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,A\,B0\,G0}{B^2\,a^6}$$

$$+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,C0\,F0\,D0}{B^{3/2}\,a^6}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,exp3\,B0\,C0}{\sqrt{B}\,a^6}+\frac{1}{2}\,\frac{L^{\#}(B)\,D1\,B0\,C0\,F0}{B^{3/2}\,a^6}$$

$$+\frac{D0\,F0\,L(B)\,B0\,C0}{\sqrt{B}\,a^6}-\frac{\mathrm{I}\,B0\,D0\,B1\,C0\,F0}{a^6}-\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,C0\,F0\,D0}{B\,a^6}$$

$$+\frac{\mathrm{I}\,B\,B0^2\,C0\,B1\,exp3}{a^6}-\frac{\mathrm{I}\,B\,B0\,D0\,B1\,exp3}{a^6}+\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,C0\,F0\,D0}{B\,a^6}$$

$$+\frac{\mathrm{I}\,B0^2\,G0\,B1\,A}{\sqrt{B}\,a^6}-\frac{\mathrm{I}\,B0\,h\,B1\,A}{\sqrt{B}\,a^7}+\frac{D0\,G0\,D1}{a^6}+\frac{D0\,F0^2\,D1}{a^6}+\frac{B\,B1\,exp3\,h}{a^7}$$

$$+\frac{D1\,F0\,h}{a^7}+\frac{h1\,F0\,D0}{a^7}+\frac{L(B)\,D0\,h1}{\sqrt{B}\,a^7}+\frac{D0\,A\,h1}{\sqrt{B}\,a^7}+\frac{B^{3/2}\,B0^2\,E\,C0}{a^6}$$

$$+\frac{\sqrt{B}\,B0\,Lr\,G0}{a^6}-\frac{B^{3/2}\,B0\,E\,D0}{a^6}-\frac{\sqrt{B}\,B0\,H\,D1}{a^6}-\frac{\sqrt{B}\,D0\,Pr\,C0}{a^6}+\frac{\sqrt{B}\,D0\,F0\,Tr}{a^6}$$

$$-\frac{\sqrt{B}\ F0\,G\,D0^2}{a^6}+\frac{h\,Nr\,G0}{\sqrt{B}\ a^7}-\frac{\sqrt{B}\ h\,G\,D0}{a^7}-\frac{h\,K\,D1}{\sqrt{B}\ a^7}-\frac{D0\,J\,D1}{a^6}+\frac{D0\,Mr\,G0}{a^6}$$

$$-\frac{B\,B0\,OR\,C0}{a^6}+\frac{2\,D0\,F0\,h}{a^7}-\frac{D0\,C0\,h1}{a^7}-\frac{D0\,C0\,h}{a^7}-\frac{h\,B0\,G0}{a^7}-\frac{h\,B1\,G0}{a^7}$$

$$-\frac{h\,Qr\,C0}{a^7}-\frac{C0\,F0\,D0^2}{a^6}+\frac{B0\,L(A)\,h1}{a^7}-\frac{1}{2}\,\frac{F0\,L(B)\,D0^2}{\sqrt{B}\ a^6}-\frac{1}{2}\,\frac{D0\,L(B)\,h}{\sqrt{B}\ a^7}$$

$$-\frac{1}{2}\,\frac{L^{\#}(B)\,D1\,h}{B^{3/2}\,a^7}+\frac{D0\,L^{\#}(F0)\,D1}{\sqrt{B}\ a^6}-\frac{\sqrt{B}\ L^{\#}(D0)\,B1\,exp3}{a^6}-\frac{\sqrt{B}\ L(B0)\,D0\,G0}{a^6}$$

$$-\frac{L^{\#}(B0)\,D1\,G0}{\sqrt{B}\ a^6}+\frac{1}{2}\,\frac{S(B)\,B0\,G0}{\sqrt{B}\ a^6}+\frac{1}{2}\,\frac{S(B)\,F0\,D0}{\sqrt{B}\ a^6}+\frac{\sqrt{B}\ L(D0)\,B0\,G0}{a^6}$$

$$+\frac{L^{\#}(D0)\,B1\,G0}{\sqrt{B}\ a^6}+\frac{\sqrt{B}\ C0\,L(B0)\,h}{a^7}+\frac{C0\,L^{\#}(B0)\,h1}{\sqrt{B}\ a^7}-\frac{1}{2}\,\frac{R(B)\,B0\,C0}{a^6}$$

$$-\frac{\mathrm{I}\,L^{\#}(L(D0))\,C0\,F0}{a^6}-\frac{\mathrm{I}\,B0^2\,G0\,D1}{a^6}-\frac{\mathrm{I}\,B0\,D0\,h1}{a^7}+\frac{\mathrm{I}\,B0\,h\,D1}{a^7}+\frac{\mathrm{I}\,B0^2\,C0\,h1}{a^7}$$

$$+\frac{\mathrm{I}\,L\left(L^{\#}(D0)\right)\,C0\,F0}{a^6}+\frac{\mathrm{I}\,D0\,C0\,L\left(L^{\#}(F0)\right)}{a^6}-\frac{\mathrm{I}\,D0\,C0\,L^{\#}(L(F0))}{a^6}+\frac{1}{2}\,\frac{S(B)\,h}{\sqrt{B}\ a^7}$$

$$-\frac{\sqrt{B}\ D0\,S(F0)}{a^6}-\frac{L^{\#}(D0)\,h1}{\sqrt{B}\ a^7}+\frac{\sqrt{B}\ L(F0)\,D0^2}{a^6}-\frac{\sqrt{B}\ L(D0)\,h}{a^7}$$

$$-\frac{\sqrt{B}\ S(D0)\,F0}{a^6}+\frac{\sqrt{B}\ S(B0)\,G0}{a^6}+\frac{F0^2\,D0^2}{a^6}-\frac{B\,F\,D0^2}{a^6}+\frac{G0\,D0^2}{a^6}+\frac{B\,D0\,Sr}{a^6}$$

$$-\frac{B\,C0\,R(B0)}{a^6}+\frac{B^{3/2}\,B0\,Rr}{a^6}+\frac{\sqrt{B}\ h\,Tr}{a^7}+\frac{h1\,h}{a^8}\Bigg)\,\tau\wedge\sigma+\Bigg(-\frac{B^{3/2}\,B0^2\,E}{a^5}+\frac{D0\,h}{a^6}$$

$$+\frac{D0\,h1}{a^6}+\frac{\sqrt{B}\ D0\,Pr}{a^5}-\frac{L^{\#}(B0)\,h1}{a^6\sqrt{B}}-\frac{\sqrt{B}\ L(B0)\,h}{a^6}-\frac{\sqrt{B}\ S(B0)\,F0}{a^5}+\frac{B\,B0\,OR}{a^5}$$

$$+\frac{h\,Qr}{a^6}+\frac{1}{2}\,\frac{B0\,R(B)}{a^5}+\frac{\mathrm{I}\,D0\,L^{\#}(L(F0))}{a^5}-\frac{\mathrm{I}\,D0\,L\left(L^{\#}(F0)\right)}{a^5}-\frac{\mathrm{I}\,B0^2\,h1}{a^6}$$

$$+\frac{B\,R(B0)}{a^5}-\frac{1}{2}\,\frac{D0\,F0\,L^{\#}(B)\,B1}{a^5\,B^{3/2}}+\frac{B0\,L(A)\,F0\,B1}{a^5}-\frac{L^{\#}(B0)\,B1\,A\,F0}{a^5\,B}$$

$$+\frac{B0\,B1\,A^2\,F0}{a^5\,B}-\frac{1}{2}\,\frac{B0\,L^{\#}(B)\,B1\,exp3}{a^5\sqrt{B}}+\frac{D0\,F0\,B1\,L(B)}{a^5\sqrt{B}}-\frac{\sqrt{B}\;D0\,F0\,G\,B0}{a^5}$$

$$-\frac{D0\,F0\,K\,B1}{a^5\sqrt{B}}+\frac{2\,D0\,B1\,A\,F0}{a^5\sqrt{B}}-\frac{1}{2}\,\frac{D0\,F0\,L(B)\,B0}{a^5\sqrt{B}}+\frac{\sqrt{B}\;B0\,A\,B1\,exp3}{a^5}$$

$$+\frac{\frac{1}{2}\,\mathrm{I}\,D0\,F0\,L\left(L^{\#}(B)\right)}{a^5\,B}-\frac{\frac{1}{2}\,\mathrm{I}\,D0\,F0\,L^{\#}(L(B))}{a^5\,B}-\frac{\mathrm{I}\,B\,B0^2\,B1\,exp3}{a^5}$$

$$-\frac{1}{2}\,\frac{B0\,L^{\#}(B)\,B1\,A\,F0}{a^5\,B^2}-\frac{\mathrm{I}\,B0^2\,B1\,A\,F0}{a^5\sqrt{B}}-\frac{\sqrt{B}\;h\,G\,B0}{a^6}-\frac{h\,K\,B1}{a^6\sqrt{B}}+\frac{B0\,A\,h1}{a^6\sqrt{B}}$$

$$+\frac{D0\,F0^2\,B0}{a^5}+\frac{D0\,F0^2\,B1}{a^5}+\frac{D0\,F0\,Qr}{a^5}+\frac{B\,D0\,B1\,exp3}{a^5}-\frac{D0\,Mr\,F0}{a^5}-\frac{B\,D0\,F\,B0}{a^5}$$

$$-\frac{D0\,J\,B1}{a^5}-\frac{h\,L(B)\,B0}{a^6\sqrt{B}}-\frac{h\,Nr\,F0}{a^6\sqrt{B}}-\frac{D0\,F0^2\,Nr}{a^5\sqrt{B}}+\frac{D0\,L^{\#}(F0)\,B1}{a^5\sqrt{B}}$$

$$+\frac{\sqrt{B}\;D0\,L(F0)\,B0}{a^5}-\frac{\sqrt{B}\;B0\,H\,B1}{a^5}+\frac{h\,F0\,B0}{a^6}+\frac{h\,F0\,B1}{a^6}-\frac{\sqrt{B}\;L^{\#}(B0)\,B1\,exp3}{a^5}$$

$$-\frac{\sqrt{B}\;B0\,Lr\,F0}{a^5}-\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,h}{a^6\,B^{3/2}}-\frac{1}{2}\,\frac{B0\,L^{\#}(B)\,h1}{a^6\,B^{3/2}}-\frac{1}{2}\,\frac{B0\,S(B)\,F0}{a^5\sqrt{B}}$$

$$+\frac{\mathrm{I}\,B0\,B1\,h}{a^6}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,h}{a^6\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,h}{a^6\,B}\Bigg)\,\tau\wedge\rho+\Bigg(\frac{\sqrt{B}\;F0\,G\,D0}{a^4}$$

$$-\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,G0}{a^4\,B^{3/2}}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,exp3}{a^4\sqrt{B}}+\frac{C0\,F0\,D0}{a^4}+\frac{\sqrt{B}\;h\,G}{a^5}+\frac{\sqrt{B}\;L(B0)\,G0}{a^4}$$

$$+\frac{\mathrm{I}\,B0\,h1}{a^5}+\frac{1}{2}\,\frac{F0\,L(B)\,D0}{a^4\sqrt{B}}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,G0}{a^4\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,G0}{a^4\,B}-\frac{1}{2}\,\frac{R(B)}{a^4}$$

$$-\frac{F0^2\,D0}{a^4}+\frac{1}{2}\,\frac{L^{\#}(B)\,h1}{a^5\,B^{3/2}}+\frac{1}{2}\,\frac{S(B)\,F0}{a^4\sqrt{B}}-\frac{F0\,h}{a^5}+\frac{L(B)\,h}{a^5\sqrt{B}}-\frac{\sqrt{B}\;L(F0)\,D0}{a^4}$$

$$
-\frac{G0\,D0}{a^4}+\frac{B\,F\,D0}{a^4}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,A\,F0}{a^4\,B^2}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,C0\,F0}{a^4\,B^{3/2}}
$$

$$
-\frac{\frac{1}{2}\,\mathrm{I}\,F0\,C0\,L\left(L^{\#}(B)\right)}{a^4\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,F0\,C0\,L^{\#}(L(B))}{a^4\,B}+\frac{B^{3/2}\,E\,B0}{a^4}+\frac{\mathrm{I}\,B\,B0\,B1\,exp3}{a^4}
$$

$$
+\frac{\mathrm{I}\,B0\,B1\,C0\,F0}{a^4}+\frac{\mathrm{I}\,B0\,B1\,A\,F0}{a^4\,\sqrt{B}}-\frac{\sqrt{B}\,L(B0)\,C0\,F0}{a^4}-\frac{\mathrm{I}\,B0\,B1\,G0}{a^4}\Bigg)\,\tau\wedge\zeta
$$

$$
+\Bigg(\frac{1}{2}\,\frac{D0\,L^{\#}(B)\,F0}{a^4\,B^{3/2}}-\frac{F0^2\,D0}{a^4}+\frac{D0\,F0\,K}{a^4\,\sqrt{B}}-\frac{D0\,L^{\#}(F0)}{a^4\,\sqrt{B}}-\frac{G0\,D0}{a^4}+\frac{C0\,F0\,D0}{a^4}
$$

$$
-\frac{F0\,L(B)\,D0}{a^4\,\sqrt{B}}-\frac{D0\,A\,F0}{a^4\,\sqrt{B}}+\frac{D0\,J}{a^4}+\frac{\mathrm{I}\,B0^2\,G0}{a^4}-\frac{\mathrm{I}\,B0\,h}{a^5}-\frac{\mathrm{I}\,B0^2\,C0\,F0}{a^4}-\frac{B0\,A\,G0}{a^4\,\sqrt{B}}
$$

$$
+\frac{B0\,A\,C0\,F0}{a^4\,\sqrt{B}}-\frac{B0\,L(A)\,F0}{a^4}+\frac{\sqrt{B}\,B0\,H}{a^4}+\frac{L^{\#}(B0)\,G0}{a^4\,\sqrt{B}}-\frac{L^{\#}(B0)\,C0\,F0}{a^4\,\sqrt{B}}
$$

$$
+\frac{1}{2}\,\frac{L^{\#}(B)\,h}{a^5\,B^{3/2}}+\frac{1}{2}\,\frac{L^{\#}(B)\,B0\,G0}{a^4\,B^{3/2}}-\frac{1}{2}\,\frac{L^{\#}(B)\,B0\,C0\,F0}{a^4\,B^{3/2}}-\frac{F0\,h}{a^5}+\frac{h\,K}{a^5\,\sqrt{B}}\Bigg)\,\tau\wedge\zeta^{\#}
$$

$$
+\Bigg(\frac{h\,Nr}{a^5\,\sqrt{B}}-\frac{h\,B1}{a^5}+\frac{D0\,D1}{a^4}+\frac{\sqrt{B}\,B0\,Lr}{a^4}+\frac{D0\,Mr}{a^4}-\frac{L^{\#}(B0)\,D1}{a^4\,\sqrt{B}}
$$

$$
+\frac{\sqrt{B}\,L(D0)\,B0}{a^4}-\frac{\sqrt{B}\,L(B0)\,D0}{a^4}+\frac{L^{\#}(D0)\,B1}{a^4\,\sqrt{B}}+\frac{1}{2}\,\frac{B0\,S(B)}{a^4\,\sqrt{B}}-\frac{\mathrm{I}\,B0^2\,D1}{a^4}
$$

$$
-\frac{B0\,h}{a^5}+\frac{\sqrt{B}\,S(B0)}{a^4}+\frac{D0^2}{a^4}-\frac{\mathrm{I}\,L\left(L^{\#}(D0)\right)}{a^4}+\frac{\mathrm{I}\,L^{\#}(L(D0))}{a^4}+\frac{1}{2}\,\frac{B0\,L^{\#}(B)\,B1\,A}{a^4\,B^2}
$$

$$
+\frac{\mathrm{I}\,B0^2\,B1\,A}{a^4\,\sqrt{B}}-\frac{B0\,L(A)\,B1}{a^4}+\frac{D0\,Nr\,F0}{a^4\,\sqrt{B}}+\frac{B0\,A\,D1}{a^4\,\sqrt{B}}+\frac{L^{\#}(B0)\,B1\,A}{a^4\,B}-\frac{B0\,B1\,A^2}{a^4\,B}
$$

$$
-\frac{D0\,F0\,B0}{a^4}-\frac{D0\,F0\,B1}{a^4}-\frac{1}{2}\,\frac{D0\,L(B)\,B0}{a^4\,\sqrt{B}}-\frac{1}{2}\,\frac{B0\,L^{\#}(B)\,D1}{a^4\,B^{3/2}}-\frac{B1\,L(B)\,D0}{a^4\,\sqrt{B}}
$$

$$
-\frac{2\,B1\,A\,D0}{a^4\,\sqrt{B}}+\frac{\mathrm{I}\,B0\,B1\,D0}{a^4}\Bigg)\,\sigma\wedge\rho+\Bigg(\frac{F0\,D0}{a^3}+\frac{1}{2}\,\frac{L(B)\,D0}{a^3\,\sqrt{B}}-\frac{C0\,D0}{a^3}
$$

$$
-\frac{\sqrt{B}\,L(D0)}{a^3}+\frac{\mathrm{I}\,B0\,D1}{a^3}-\frac{\mathrm{I}\,B0\,B1\,A}{a^3\,\sqrt{B}}-\frac{\mathrm{I}\,B0\,B1\,C0}{a^3}+\frac{\sqrt{B}\,L(B0)\,C0}{a^3}
$$

$$
+\frac{1}{2}\,\frac{L^{\#}(B)\,D1}{a^3\,B^{3/2}}-\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,A}{a^3\,B^2}-\frac{1}{2}\,\frac{L^{\#}(B)\,B1\,C0}{a^3\,B^{3/2}}+\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)}{a^3\,B}
$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L^{\#}(L(B))}{a^3\,B}-\frac{1}{2}\,\frac{S(B)}{a^3\sqrt{B}}+\frac{h}{a^4}\Bigg)\sigma\wedge\zeta+\Bigg(\frac{F0\,D0}{a^3}-\frac{C0\,D0}{a^3}+\frac{L(B)\,D0}{a^3\sqrt{B}}$$
$$+\frac{D0\,A}{a^3\sqrt{B}}-\frac{L^{\#}(D0)}{a^3\sqrt{B}}-\frac{\mathrm{I}\,B0\,D0}{a^3}+\frac{\mathrm{I}\,B0^2\,C0}{a^3}-\frac{B0\,A\,C0}{a^3\sqrt{B}}+\frac{B0\,L(A)}{a^3}+\frac{L^{\#}(B0)\,C0}{a^3\sqrt{B}}$$
$$+\frac{1}{2}\,\frac{L^{\#}(B)\,B0\,C0}{a^3\,B^{3/2}}+\frac{h}{a^4}\Bigg)\sigma\wedge\zeta^{\#}+\Bigg(\frac{D0}{a^2}+\frac{\mathrm{I}\,B0\,B1}{a^2}-\frac{\sqrt{B}\,L(B0)}{a^2}+\frac{1}{2}\,\frac{L^{\#}(B)\,B1}{a^2\,B^{3/2}}$$
$$-\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)}{a^2\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))}{a^2\,B}\Bigg)\rho\wedge\zeta+\Bigg(\frac{D0}{a^2}-\frac{\mathrm{I}\,B0^2}{a^2}+\frac{B0\,A}{a^2\sqrt{B}}-\frac{L^{\#}(B0)}{a^2\sqrt{B}}$$
$$-\frac{1}{2}\,\frac{L^{\#}(B)\,B0}{a^2\,B^{3/2}}\Bigg)\rho\wedge\zeta^{\#}+\Bigg(\frac{\mathrm{I}\,B0}{a}+\frac{1}{2}\,\frac{L^{\#}(B)}{a\,B^{3/2}}\Bigg)\zeta\wedge\zeta^{\#}$$

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$$\alpha_1\wedge\zeta^{\#}+\alpha_3\wedge\tau+\Bigg(\frac{\sqrt{B}\,B1\,exp3\,Nr\,G0}{a^6}-\frac{B^{3/2}\,B1\,exp3\,G\,D0}{a^6}-\frac{\sqrt{B}\,B1\,exp3\,K\,D1}{a^6}\tag{9}$$
$$+\frac{\sqrt{B}\,B1^2\,exp3\,K\,C0}{a^6}-\frac{B1\,A\,Mr\,G0}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,B1\,A\,F\,D0}{a^6}+\frac{2\,B1\,A\,J\,D1}{\sqrt{B}\,a^6}$$
$$-\frac{B1^2\,A\,J\,C0}{\sqrt{B}\,a^6}+\frac{B^{3/2}\,B1\,E\,B0\,C0}{a^6}+\frac{D1\,F0\,Nr\,G0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,D1\,F0\,G\,D0}{a^6}$$
$$-\frac{2\,D1\,G0\,B1\,A}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,D1\,A\,B1\,exp3}{a^6}+\frac{B1\,A\,C0\,h}{\sqrt{B}\,a^7}+\frac{\sqrt{B}\,h1\,G\,B0\,C0}{a^7}$$
$$+\frac{h1\,K\,B1\,C0}{\sqrt{B}\,a^7}+\frac{1}{2}\,\frac{D1\,L^{\#}(B)\,B1\,exp3}{\sqrt{B}\,a^6}+\frac{B^{3/2}\,B1\,Rr}{a^6}+\frac{D1\,F0\,K\,B1\,A}{B\,a^6}$$
$$+\frac{D1\,L^{\#}(B)\,B1\,C0\,F0}{B^{3/2}\,a^6}+\frac{1}{2}\,\frac{\sqrt{B}\,L(B)\,B0\,C0\,B1\,exp3}{a^6}+\frac{3}{2}\,\frac{L(B)\,B0\,C0\,F0\,D1}{\sqrt{B}\,a^6}$$
$$-\frac{1}{2}\,\frac{L(B)\,D0\,B1\,C0\,F0}{\sqrt{B}\,a^6}-\frac{B1\,A\,L(B)\,F0\,D1}{B\,a^6}+\frac{3}{2}\,\frac{B1\,A\,L(B)\,B0\,G0}{B\,a^6}$$
$$-\frac{3}{2}\,\frac{F0\,A\,B1\,L(B)\,D0}{B\,a^6}+\frac{B1\,A\,C0\,F0\,D0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,B1\,A\,F\,B0\,C0}{a^6}$$

$$+\frac{B^{3/2}\,B1\,exp3\,G\,B0\,C0}{a^6}+\frac{\sqrt{B}\,D1\,F0\,G\,B0\,C0}{a^6}+\frac{D1\,F0\,K\,B1\,C0}{\sqrt{B}\,a^6}$$

$$+\frac{\mathrm{I}\,B\,B0\,C0\,B1^2\,exp3}{a^6}+\frac{\frac{3}{2}\,\mathrm{I}\,L^{\#}(L(B))\,C0\,F0\,D1}{B\,a^6}-\frac{\frac{3}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,C0\,F0\,D1}{B\,a^6}$$

$$+\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,L^{\#}(L(B))\,G0}{B^{3/2}\,a^6}-\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,L\left(L^{\#}(B)\right)\,G0}{B^{3/2}\,a^6}-\frac{\mathrm{I}\,D0\,B1^2\,A\,F0}{\sqrt{B}\,a^6}$$

$$+\frac{\mathrm{I}\,B0\,G0\,B1^2\,A}{\sqrt{B}\,a^6}+\frac{\mathrm{I}\,B1\,B0\,C0\,F0\,D1}{a^6}-\frac{A\,exp3\,L^{\#}(B)\,B1^2}{B\,a^6}-\frac{A\,L(B1)\,B0\,G0}{a^6}$$

$$+\frac{B1^2\,exp3\,K\,A}{a^6}+\frac{2\,B\,B1\,exp3\,F0\,D1}{a^6}-\frac{B\,B1\,exp3\,B0\,G0}{a^6}-\frac{B\,B1\,exp3\,Qr\,C0}{a^6}$$

$$+\frac{B1\,A\,Pr\,C0}{a^6}-\frac{B1\,A^2\,F0\,D1}{B\,a^6}-\frac{B\,D1\,C0\,B1\,exp3}{a^6}+\frac{B\,D1\,F\,B0\,C0}{a^6}+\frac{D1\,J\,B1\,C0}{a^6}$$

$$-\frac{D1\,F0\,B0\,G0}{a^6}-\frac{D1\,F0\,B1\,G0}{a^6}-\frac{D1\,F0\,Qr\,C0}{a^6}+\frac{h1\,K\,B1\,A}{B\,a^7}-\frac{\mathrm{I}\,h\,B1^2\,A}{\sqrt{B}\,a^7}$$

$$+\frac{\mathrm{I}\,L\left(L^{\#}(B)\right)\,G0\,D1}{B\,a^6}-\frac{\mathrm{I}\,L^{\#}(L(B))\,G0\,D1}{B\,a^6}-\frac{\mathrm{I}\,B\,D0\,B1^2\,exp3}{a^6}$$

$$+\frac{\mathrm{I}\,B\,B1\,L\left(L^{\#}(exp3)\right)\,C0}{a^6}-\frac{\mathrm{I}\,B\,exp3\,L^{\#}(L(B1))\,C0}{a^6}+\frac{\mathrm{I}\,B\,exp3\,L\left(L^{\#}(B1)\right)\,C0}{a^6}$$

$$-\frac{\mathrm{I}\,B\,B1\,L^{\#}(L(exp3))\,C0}{a^6}+\frac{\frac{3}{2}\,\mathrm{I}\,C0\,L^{\#}(L(B))\,h1}{B\,a^7}-\frac{\frac{3}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)\,h1}{B\,a^7}$$

$$-\frac{\mathrm{I}\,A\,L^{\#}(L(B1))\,G0}{\sqrt{B}\,a^6}+\frac{\mathrm{I}\,A\,L\left(L^{\#}(B1)\right)\,G0}{\sqrt{B}\,a^6}+\frac{\mathrm{I}\,B1\,L\left(L^{\#}(A)\right)\,G0}{\sqrt{B}\,a^6}-\frac{\mathrm{I}\,B1\,L^{\#}(L(A))\,G0}{\sqrt{B}\,a^6}$$

$$+\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L^{\#}(L(B))\,B1\,exp3}{a^6}+\frac{\mathrm{I}\,B1\,B0\,C0\,h1}{a^7}-\frac{\mathrm{I}\,D0\,B1^2\,C0\,F0}{a^6}-\frac{\mathrm{I}\,B1\,B0\,G0\,D1}{a^6}$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)\,B1\,exp3}{a^6}-\frac{B^{3/2}\,exp3\,L(B1)\,B0\,C0}{a^6}+\frac{h1\,L^{\#}(B)\,B1\,C0}{B^{3/2}\,a^7}$$

$$+\frac{A\,L^{\#}(B)\,B1^2\,G0}{B^2\,a^6}-\frac{B1\,A\,L(B)\,h1}{B\,a^7}-\frac{3}{2}\,\frac{B1\,A\,L(B)\,h}{B\,a^7}-\frac{B1^2\,A\,L(B)\,exp3}{a^6}$$

$$-\frac{D1\,L^{\#}(F0)\,B1\,A}{B\,a^6}+\frac{F0\,B1\,L^{\#}(A)\,D1}{B\,a^6}+\frac{F0\,A\,L^{\#}(B1)\,D1}{B\,a^6}+\frac{F0\,A\,L(B1)\,D0}{a^6}$$

$$+\frac{F0\,B1\,L(A)\,D0}{a^6}+\frac{B1\,L(A)\,F0\,D1}{a^6}+\frac{B1^2\,A\,L(B)\,G0}{B\,a^6}-\frac{L^{\#}(D1)\,B1\,A\,F0}{B\,a^6}$$

$$-\frac{\sqrt{B}\,D1\,Pr\,C0}{a^6}+\frac{\sqrt{B}\,D1\,F0\,Tr}{a^6}-\frac{F0\,K\,D1^2}{\sqrt{B}\,a^6}+\frac{A\,F0\,D1^2}{\sqrt{B}\,a^6}+\frac{B^{3/2}\,B1\,exp3\,Tr}{a^6}$$

$$+\frac{D1\,A\,h1}{\sqrt{B}\,a^7}-\frac{\sqrt{B}\,B1\,A\,Sr}{a^6}+\frac{\sqrt{B}\,H\,B1^2\,C0}{a^6}+\frac{\sqrt{B}\,B1\,Lr\,G0}{a^6}-\frac{B^{3/2}\,B1\,E\,D0}{a^6}$$

$$-\frac{\sqrt{B}\,B1\,H\,D1}{a^6}+\frac{h1\,Nr\,G0}{\sqrt{B}\,a^7}-\frac{\sqrt{B}\,h1\,G\,D0}{a^7}-\frac{h1\,K\,D1}{\sqrt{B}\,a^7}-\frac{B\,B1\,OR\,C0}{a^6}$$

$$+\frac{G0\,B1^2\,A^2}{B\,a^6}+\frac{H\,B1^2\,A}{a^6}-\frac{B\,B1^2\,exp3\,G0}{a^6}-\frac{B1^2\,A^2\,J}{B\,a^6}-\frac{B1^2\,A^2\,exp3}{a^6}-\frac{C0\,F0\,D1^2}{a^6}$$

$$+\frac{D1\,Mr\,G0}{a^6}-\frac{B\,D1\,F\,D0}{a^6}+\frac{2\,B\,B1\,exp3\,h1}{a^7}-\frac{B1\,A^2\,h1}{B\,a^7}-\frac{D1\,C0\,h}{a^7}-\frac{D1\,C0\,h1}{a^7}$$

$$+\frac{2\,D1\,F0\,h1}{a^7}-\frac{h1\,B0\,G0}{a^7}-\frac{h1\,B1\,G0}{a^7}-\frac{h1\,Qr\,C0}{a^7}+\frac{1}{2}\,\frac{R(B)\,B1\,C0}{a^6}$$

$$-\frac{L(A)\,B1^2\,G0}{a^6}+\frac{B\,L(A)\,B1^2\,exp3}{a^6}-\frac{A\,L^{\#}(exp3)\,B1^2}{a^6}+\frac{exp3\,L^{\#}(A)\,B1^2}{a^6}$$

$$-\frac{L^{\#}(A)\,B1^2\,G0}{B\,a^6}+\frac{B1\,L(A)\,h}{a^7}+\frac{B1\,L^{\#}(A)\,h1}{B\,a^7}+\frac{B1\,L(A)\,h1}{a^7}+\frac{A\,L^{\#}(B1)\,h1}{B\,a^7}$$

$$+\frac{A\,L(B1)\,h}{a^7}+\frac{D1\,L(B)\,h1}{\sqrt{B}\,a^7}+\frac{1}{2}\,\frac{\sqrt{B}\,S(B)\,B1\,exp3}{a^6}-\frac{\sqrt{B}\,C0\,L^{\#}(exp3)\,B1^2}{a^6}$$

$$+\frac{\sqrt{B}\,B1\,L^{\#}(exp3)\,D1}{a^6}+\frac{B^{3/2}\,B1\,L(exp3)\,D0}{a^6}+\frac{\sqrt{B}\,exp3\,L^{\#}(B1)\,D1}{a^6}$$

$$+\frac{B^{3/2}\,exp3\,L(B1)\,D0}{a^6}-\frac{1}{2}\,\frac{D1\,L^{\#}(B)\,h1}{B^{3/2}\,a^7}+\frac{L^{\#}(D1)\,B1\,G0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,L^{\#}(D1)\,B1\,exp3}{a^6}$$

$$+\frac{\sqrt{B}\,L(D1)\,B0\,G0}{a^6}-\frac{L^{\#}(B1)\,D1\,G0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,L(B1)\,D0\,G0}{a^6}+\frac{3}{2}\,\frac{S(B)\,F0\,D1}{\sqrt{B}\,a^6}$$

$$-\frac{1}{2}\,\frac{S(B)\,B1\,G0}{\sqrt{B}\,a^6}+\frac{3}{2}\,\frac{B1\,A\,R(B)}{\sqrt{B}\,a^6}-\frac{1}{2}\,\frac{D1\,L^{\#}(B)\,B1\,G0}{B^{3/2}\,a^6}-\frac{B^{3/2}\,B1\,L(exp3)\,B0\,C0}{a^6}$$

$$-\frac{D1\,L(B)\,B1\,G0}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,D1\,L(B)\,B1\,exp3}{a^6}-\frac{1}{2}\,\frac{L(B)\,h\,B1\,C0}{\sqrt{B}\,a^7}-\frac{D1\,L^{\#}(F0)\,B1\,C0}{\sqrt{B}\,a^6}$$

$$-\frac{\sqrt{B}\,D1\,L(F0)\,B0\,C0}{a^6}+\frac{L^{\#}(B1)\,D1\,C0\,F0}{\sqrt{B}\,a^6}+\frac{\sqrt{B}\,L(B1)\,D0\,C0\,F0}{a^6}$$

$$-\frac{L(B)\,B0\,G0\,D1}{\sqrt{B}\,a^6}-\frac{L^{\#}(D1)\,B1\,C0\,F0}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,L(D1)\,B0\,C0\,F0}{a^6}+\frac{3}{2}\,\frac{L(B)\,B0\,C0\,h1}{\sqrt{B}\,a^7}$$

$$+\frac{h1^2}{a^8}+\frac{B\,R(D1)}{a^6}+\frac{\sqrt{B}\,h1\,Tr}{a^7}+\frac{B^2\,B1^2\,exp3^2}{a^6}+\frac{B\,D1\,Sr}{a^6}+\frac{G0\,D1^2}{a^6}-\frac{J\,D1^2}{a^6}$$

$$+\frac{F0^2\,D1^2}{a^6}-\frac{B\,C0\,R(B1)}{a^6}-\frac{R(B)\,D1}{a^6}-\frac{\sqrt{B}\,L(D1)\,h}{a^7}+\frac{\sqrt{B}\,S(B1)\,G0}{a^6}$$

$$-\frac{\sqrt{B}\,A\,R(B1)}{a^6}-\frac{\sqrt{B}\,B1\,R(A)}{a^6}-\frac{\sqrt{B}\,D1\,S(F0)}{a^6}+\frac{L^{\#}(F0)\,D1^2}{\sqrt{B}\,a^6}-\frac{\sqrt{B}\,S(D1)\,F0}{a^6}$$

$$-\frac{B^{3/2}\,B1\,S(exp3)}{a^6}-\frac{B^{3/2}\,exp3\,S(B1)}{a^6}+\frac{3}{2}\,\frac{S(B)\,h1}{\sqrt{B}\,a^7}-\frac{L^{\#}(D1)\,h1}{\sqrt{B}\,a^7}$$

$$-\frac{\mathrm{I}\,L\left(L^{\#}(D1)\right)\,G0}{a^6}+\frac{\mathrm{I}\,L^{\#}(L(D1))\,G0}{a^6}-\frac{1}{2}\,\frac{F0\,L^{\#}(B)\,D1^2}{B^{3/2}\,a^6}+\frac{L(B)\,F0\,D1^2}{\sqrt{B}\,a^6}$$

$$+\frac{\sqrt{B}\,D1\,L(F0)\,D0}{a^6}+\frac{C0\,L^{\#}(B1)\,h1}{\sqrt{B}\,a^7}+\frac{\sqrt{B}\,C0\,L(B1)\,h}{a^7}+\frac{L(B)\,h\,D1}{\sqrt{B}\,a^7}$$

$$+\frac{\mathrm{I}\,L\left(L^{\#}(D1)\right)\,C0\,F0}{a^6}-\frac{\mathrm{I}\,L^{\#}(L(D1))\,C0\,F0}{a^6}+\frac{\mathrm{I}\,D0\,B1^2\,G0}{a^6}-\frac{\mathrm{I}\,B1\,D0\,h1}{a^7}$$

$$+\frac{\mathrm{I}\,B1\,h\,D1}{a^7}-\frac{\mathrm{I}\,h\,B1^2\,C0}{a^7}+\frac{\mathrm{I}\,D1\,C0\,L\left(L^{\#}(F0)\right)}{a^6}-\frac{\mathrm{I}\,D1\,C0\,L^{\#}(L(F0))}{a^6}$$

$$-\frac{B1\,A\,G0\,D0}{\sqrt{B}\,a^6}+\frac{1}{2}\,\frac{L(B)\,D0\,B1\,G0}{\sqrt{B}\,a^6}-\frac{1}{2}\,\frac{\sqrt{B}\,L(B)\,D0\,B1\,exp3}{a^6}$$

$$-\frac{1}{2}\,\frac{D0\,L(B)\,F0\,D1}{\sqrt{B}\,a^6}-\frac{B0\,L(A)\,B1\,G0}{a^6}-\frac{D0\,C0\,F0\,D1}{a^6}+\frac{B\,B1\,exp3\,F0\,D0}{a^6}$$

$$+\frac{D0\,G0\,D1}{a^6}+\frac{D0\,F0^2\,D1}{a^6}+\frac{B\,B1\,exp3\,h}{a^7}+\frac{D1\,F0\,h}{a^7}+\frac{h1\,F0\,D0}{a^7}$$

$$-\frac{3}{2}\,\frac{L(B)\,D0\,h1}{\sqrt{B}\,a^7}+\frac{h1\,h}{a^8}\Bigg)\,\tau\wedge\sigma+\Bigg(\frac{\sqrt{B}\,D1\,Pr}{a^5}+\frac{\sqrt{B}\,L^{\#}(exp3)\,B1^2}{a^5}$$

$$-\frac{\sqrt{B}\,L(B1)\,h}{a^6}-\frac{L^{\#}(B1)\,h1}{a^6\sqrt{B}}+\frac{B\,B1\,OR}{a^5}-\frac{1}{2}\,\frac{R(B)\,B1}{a^5}-\frac{\sqrt{B}\,S(B1)\,F0}{a^5}$$

$$-\frac{\sqrt{B}\,H\,B1^2}{a^5}+\frac{D1\,h}{a^6}+\frac{D1\,h1}{a^6}+\frac{h1\,Qr}{a^6}+\frac{\mathrm{I}\,B1^2\,h}{a^6}+\frac{\mathrm{I}\,D1\,L^{\#}(L(F0))}{a^5}$$

$$-\frac{\mathrm{I}\,D1\,L\left(L^{\#}(F0)\right)}{a^5}-\frac{3}{2}\,\frac{F0\,B1\,A\,L(B)\,B0}{a^5\,B}+\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,F0\,L\left(L^{\#}(B)\right)}{a^5\,B^{3/2}}$$

$$-\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,F0\,L^{\#}(L(B))}{a^5\,B^{3/2}}-\frac{\mathrm{I}\,B0\,B1^2\,A\,F0}{a^5\sqrt{B}}-\frac{F0\,A\,L^{\#}(B)\,B1^2}{a^5\,B^2}-\frac{B1^2\,A\,F0\,L(B)}{a^5\,B}$$

$$+\frac{B\,B1\,exp3\,F0\,B0}{a^5}-\frac{1}{2}\,\frac{\sqrt{B}\,L(B)\,B0\,B1\,exp3}{a^5}+\frac{F0\,A\,L(B1)\,B0}{a^5}$$

$$-\frac{\sqrt{B}\,B1\,exp3\,Nr\,F0}{a^5}-\frac{B^{3/2}\,B1\,exp3\,G\,B0}{a^5}+\frac{D1\,F0\,B1\,L(B)}{a^5\sqrt{B}}-\frac{\sqrt{B}\,D1\,F0\,G\,B0}{a^5}$$

$$-\frac{D1\,F0\,K\,B1}{a^5\sqrt{B}}+\frac{2\,D1\,B1\,A\,F0}{a^5\sqrt{B}}-\frac{1}{2}\,\frac{D1\,F0\,L(B)\,B0}{a^5\sqrt{B}}-\frac{1}{2}\,\frac{D1\,F0\,L^{\#}(B)\,B1}{a^5\,B^{3/2}}$$

$$+\frac{B1\,A\,Mr\,F0}{a^5\sqrt{B}}+\frac{\sqrt{B}\,B1\,A\,F\,B0}{a^5}-\frac{\mathrm{I}\,B\,B0\,B1^2\,exp3}{a^5}-\frac{\mathrm{I}\,F0\,B1\,L\left(L^{\#}(A)\right)}{a^5\sqrt{B}}$$

$$+\frac{\mathrm{I}\,F0\,A\,L^{\#}(L(B1))}{a^5\sqrt{B}}-\frac{\mathrm{I}\,F0\,A\,L\left(L^{\#}(B1)\right)}{a^5\sqrt{B}}+\frac{\mathrm{I}\,F0\,B1\,L^{\#}(L(A))}{a^5\sqrt{B}}$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,D1\,F0\,L^{\#}(L(B))}{a^5\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,D1\,F0\,L\left(L^{\#}(B)\right)}{a^5\,B}+\frac{B\,R(B1)}{a^5}-\frac{\sqrt{B}\;B1\,Lr\,F0}{a^5}$$

$$+\frac{D1\,F0^2\,B0}{a^5}+\frac{D1\,F0^2\,B1}{a^5}+\frac{D1\,F0\,Qr}{a^5}+\frac{B\,D1\,B1\,exp3}{a^5}-\frac{D1\,Mr\,F0}{a^5}-\frac{B\,D1\,F\,B0}{a^5}$$

$$-\frac{D1\,J\,B1}{a^5}+\frac{1}{2}\,\frac{B1\,S(B)\,F0}{a^5\sqrt{B}}-\frac{B^{3/2}\,B1\,E\,B0}{a^5}-\frac{\sqrt{B}\;B1^2\,exp3\,K}{a^5}+\frac{F0\,L^{\#}(A)\,B1^2}{a^5\,B}$$

$$+\frac{L(A)\,F0\,B1^2}{a^5}-\frac{B1^2\,A^2\,F0}{a^5\,B}+\frac{1}{2}\,\frac{B1\,L(B)\,h}{a^6\sqrt{B}}-\frac{3}{2}\,\frac{L(B)\,B0\,h1}{a^6\sqrt{B}}+\frac{B1^2\,A\,J}{a^5\sqrt{B}}$$

$$-\frac{D1\,F0^2\,Nr}{a^5\sqrt{B}}+\frac{D1\,L^{\#}(F0)\,B1}{a^5\sqrt{B}}+\frac{\sqrt{B}\;D1\,L(F0)\,B0}{a^5}-\frac{B1\,A\,h}{a^6\sqrt{B}}-\frac{B1\,A\,Pr}{a^5}$$

$$+\frac{B\,B1\,exp3\,Qr}{a^5}-\frac{h1\,L^{\#}(B)\,B1}{a^6\,B^{3/2}}+\frac{h1\,F0\,B0}{a^6}+\frac{h1\,F0\,B1}{a^6}+\frac{B\,B1^2\,exp3\,F0}{a^5}$$

$$+\frac{B^{3/2}\,B1\,L(exp3)\,B0}{a^5}+\frac{B^{3/2}\,exp3\,L(B1)\,B0}{a^5}-\frac{h1\,Nr\,F0}{a^6\sqrt{B}}-\frac{\sqrt{B}\;h1\,G\,B0}{a^6}$$

$$-\frac{h1\,K\,B1}{a^6\sqrt{B}}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,B1\,exp3}{a^5}-\frac{\mathrm{I}\,B1\,B0\,h1}{a^6}+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,B1\,exp3}{a^5}$$

$$+\frac{\mathrm{I}\,B\,B1\,L^{\#}(L(exp3))}{a^5}-\frac{\mathrm{I}\,B\,B1\,L\left(L^{\#}(exp3)\right)}{a^5}+\frac{\mathrm{I}\,B\,exp3\,L^{\#}(L(B1))}{a^5}$$

$$-\frac{\mathrm{I}\,B\,exp3\,L\left(L^{\#}(B1)\right)}{a^5}-\frac{\frac{3}{2}\,\mathrm{I}\,L^{\#}(L(B))\,h1}{a^6\,B}+\frac{\frac{3}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,h1}{a^6\,B}+\frac{B0\,L(A)\,F0\,B1}{a^5}\Bigg)$$

$$\tau\wedge\rho+\Bigg(\frac{C0\,F0\,D1}{a^4}-\frac{B\,F0\,B1\,exp3}{a^4}+\frac{G0\,B1\,A}{a^4\sqrt{B}}+\frac{B\,D1\,F}{a^4}-\frac{\sqrt{B}\;D1\,L(F0)}{a^4}$$

$$+\frac{B^{3/2}\,B1\,E}{a^4}+\frac{\sqrt{B}\;L(B1)\,G0}{a^4}-\frac{B^{3/2}\,B1\,L(exp3)}{a^4}-\frac{B^{3/2}\,exp3\,L(B1)}{a^4}+\frac{\sqrt{B}\;h1\,G}{a^5}$$

$$+\frac{\mathrm{I}\,B1\,h1}{a^5}-\frac{\mathrm{I}\,B1^2\,G0}{a^4}-\frac{1}{2}\,\frac{L(B)\,B1\,G0}{a^4\sqrt{B}}+\frac{1}{2}\,\frac{\sqrt{B}\;L(B)\,B1\,exp3}{a^4}+\frac{1}{2}\,\frac{L(B)\,F0\,D1}{a^4\sqrt{B}}$$

$$+\frac{3}{2}\,\frac{L(B)\,B1\,A\,F0}{a^4\,B}+\frac{\mathrm{I}\,B1^2\,A\,F0}{a^4\sqrt{B}}-\frac{F0^2\,D1}{a^4}-\frac{F0\,h1}{a^5}+\frac{3}{2}\,\frac{L(B)\,h1}{a^5\sqrt{B}}+\frac{\mathrm{I}\,B1^2\,C0\,F0}{a^4}$$

$$+\frac{\mathrm{I}\,B\,B1^2\,exp3}{a^4}-\frac{G0\,D1}{a^4}-\frac{C0\,B1\,A\,F0}{a^4\sqrt{B}}+\frac{1}{2}\,\frac{C0\,F0\,B1\,L(B)}{a^4\sqrt{B}}-\frac{L(A)\,F0\,B1}{a^4}$$

$$+\frac{\sqrt{B}\,D1\,F0\,G}{a^4}-\frac{F0\,A\,L(B1)}{a^4}-\frac{\sqrt{B}\,L(B1)\,C0\,F0}{a^4}-\frac{\sqrt{B}\,B1\,A\,F}{a^4}$$

$$+\frac{B^{3/2}\,B1\,exp3\,G}{a^4}\Bigg)\,\tau\wedge\zeta+\Bigg(\frac{F0\,K\,D1}{a^4\sqrt{B}}+\frac{C0\,F0\,D1}{a^4}-\frac{B\,F0\,B1\,exp3}{a^4}-\frac{A\,F0\,D1}{a^4\sqrt{B}}$$

$$-\frac{\sqrt{B}\,B1\,L^{\#}(exp3)}{a^4}-\frac{\sqrt{B}\,exp3\,L^{\#}(B1)}{a^4}+\frac{h1\,K}{a^5\sqrt{B}}+\frac{L^{\#}(B1)\,G0}{a^4\sqrt{B}}-\frac{\mathrm{I}\,B1\,h}{a^5}$$

$$+\frac{1}{2}\,\frac{F0\,L^{\#}(B)\,D1}{a^4\,B^{3/2}}+\frac{1}{2}\,\frac{L(B)\,B0\,G0}{a^4\sqrt{B}}-\frac{L(B)\,F0\,D1}{a^4\sqrt{B}}+\frac{L(B)\,B1\,A\,F0}{a^4\,B}$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,F0\,L^{\#}(L(B))}{a^4\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,C0\,F0}{a^4\,B}-\frac{\mathrm{I}\,B1\,B0\,C0\,F0}{a^4}-\frac{J\,B1\,A}{a^4\sqrt{B}}$$

$$+\frac{1}{2}\,\frac{R(B)}{a^4}+\frac{J\,D1}{a^4}-\frac{F0^2\,D1}{a^4}+\frac{L^{\#}(B)\,h1}{a^5\,B^{3/2}}-\frac{1}{2}\,\frac{S(B)\,F0}{a^4\sqrt{B}}-\frac{F0\,h1}{a^5}-\frac{1}{2}\,\frac{L(B)\,h}{a^5\sqrt{B}}$$

$$-\frac{F0\,B1\,L^{\#}(A)}{a^4\,B}-\frac{F0\,A\,L^{\#}(B1)}{a^4\,B}-\frac{L^{\#}(B1)\,C0\,F0}{a^4\sqrt{B}}+\frac{\sqrt{B}\,B1\,exp3\,K}{a^4}+\frac{\mathrm{I}\,B1\,B0\,G0}{a^4}$$

$$-\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)\,G0}{a^4\,B}+\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))\,G0}{a^4\,B}-\frac{L^{\#}(F0)\,D1}{a^4\sqrt{B}}-\frac{G0\,D1}{a^4}$$

$$-\frac{1}{2}\,\frac{F0\,L(B)\,B0\,C0}{a^4\sqrt{B}}+\frac{L^{\#}(B)\,B1\,A\,F0}{a^4\,B^2}+\frac{\sqrt{B}\,H\,B1}{a^4}+\frac{B1\,A^2\,F0}{a^4\,B}-\frac{L(A)\,F0\,B1}{a^4}\Bigg)$$

$$\tau\wedge\zeta^{\#}+\Bigg(\frac{D0\,D1}{a^4}-\frac{B\,B1^2\,exp3}{a^4}+\frac{h1\,Nr}{a^5\sqrt{B}}+\frac{\sqrt{B}\,B1\,Lr}{a^4}-\frac{L^{\#}(B1)\,D1}{a^4\sqrt{B}}$$

$$-\frac{\sqrt{B}\,L(B1)\,D0}{a^4}-\frac{1}{2}\,\frac{B1\,S(B)}{a^4\sqrt{B}}+\frac{L^{\#}(D1)\,B1}{a^4\sqrt{B}}+\frac{\sqrt{B}\,L(D1)\,B0}{a^4}+\frac{D1\,Mr}{a^4}$$

$$+\frac{B1^2\,A^2}{a^4\,B}-\frac{L(A)\,B1^2}{a^4}-\frac{L^{\#}(A)\,B1^2}{a^4\,B}-\frac{h1\,B0}{a^5}+\frac{\mathrm{I}\,B1^2\,D0}{a^4}+\frac{3}{2}\,\frac{B1\,A\,L(B)\,B0}{a^4\,B}$$

$$+\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,L^{\#}(L(B))}{a^4\,B^{3/2}}-\frac{\frac{3}{2}\,\mathrm{I}\,B1\,A\,L\left(L^{\#}(B)\right)}{a^4\,B^{3/2}}+\frac{\mathrm{I}\,B0\,B1^2\,A}{a^4\sqrt{B}}-\frac{D1\,F0\,B1}{a^4}$$

$$-\frac{A\,L(B1)\,B0}{a^4}+\frac{B1^2\,A\,L(B)}{a^4\,B}-\frac{B\,B1\,exp3\,B0}{a^4}-\frac{D1\,F0\,B0}{a^4}-\frac{L(B)\,B0\,D1}{a^4\sqrt{B}}$$

$$-\frac{D1\,B1\,L(B)}{a^4\sqrt{B}}-\frac{1}{2}\,\frac{D1\,L^{\#}(B)\,B1}{a^4\,B^{3/2}}+\frac{A\,L^{\#}(B)\,B1^2}{a^4\,B^2}-\frac{B1\,A\,Mr}{a^4\sqrt{B}}+\frac{\sqrt{B}\;B1\,exp3\,Nr}{a^4}$$

$$+\frac{D1\,Nr\,F0}{a^4\sqrt{B}}-\frac{2\,D1\,B1\,A}{a^4\sqrt{B}}-\frac{\mathrm{I}\,B1\,B0\,D1}{a^4}+\frac{\mathrm{I}\,B1\,L\left(L^{\#}(A)\right)}{a^4\sqrt{B}}+\frac{\mathrm{I}\,A\,L\left(L^{\#}(B1)\right)}{a^4\sqrt{B}}$$

$$-\frac{\mathrm{I}\,B1\,L^{\#}(L(A))}{a^4\sqrt{B}}-\frac{\mathrm{I}\,A\,L^{\#}(L(B1))}{a^4\sqrt{B}}-\frac{\mathrm{I}\,L^{\#}(L(B))\,D1}{a^4\,B}+\frac{\mathrm{I}\,L\left(L^{\#}(B)\right)\,D1}{a^4\,B}-\frac{B1\,h1}{a^5}$$

$$+\frac{\sqrt{B}\;S(B1)}{a^4}+\frac{D1^2}{a^4}-\frac{\mathrm{I}\,L\left(L^{\#}(D1)\right)}{a^4}+\frac{\mathrm{I}\,L^{\#}(L(D1))}{a^4}-\frac{B0\,L(A)\,B1}{a^4}$$

$$+\frac{1}{2}\,\frac{B1\,L(B)\,D0}{a^4\sqrt{B}}-\frac{B1\,A\,D0}{a^4\sqrt{B}}\Bigg)\,\sigma\wedge\rho+\Bigg(\frac{D1\,F0}{a^3}+\frac{L(B)\,D1}{a^3\sqrt{B}}-\frac{C0\,D1}{a^3}$$

$$-\frac{\sqrt{B}\;L(D1)}{a^3}+\frac{B\,B1\,exp3}{a^3}-\frac{3}{2}\,\frac{L(B)\,B1\,A}{a^3\,B}+\frac{C0\,B1\,A}{a^3\sqrt{B}}+\frac{L(A)\,B1}{a^3}+\frac{A\,L(B1)}{a^3}$$

$$+\frac{\mathrm{I}\,B1\,D1}{a^3}-\frac{\mathrm{I}\,B1^2\,A}{a^3\sqrt{B}}-\frac{\mathrm{I}\,B1^2\,C0}{a^3}+\frac{\sqrt{B}\;L(B1)\,C0}{a^3}-\frac{1}{2}\,\frac{C0\,B1\,L(B)}{a^3\sqrt{B}}+\frac{h1}{a^4}\Bigg)\,\sigma\wedge\zeta$$

$$+\Bigg(\frac{D1\,F0}{a^3}+\frac{1}{2}\,\frac{L^{\#}(B)\,D1}{a^3\,B^{3/2}}-\frac{C0\,D1}{a^3}+\frac{L(B)\,D1}{a^3\sqrt{B}}+\frac{A\,D1}{a^3\sqrt{B}}-\frac{L^{\#}(D1)}{a^3\sqrt{B}}$$

$$+\frac{B\,B1\,exp3}{a^3}-\frac{L^{\#}(B)\,B1\,A}{a^3\,B^2}-\frac{L(B)\,B1\,A}{a^3\,B}-\frac{B1\,A^2}{a^3\,B}+\frac{B1\,L^{\#}(A)}{a^3\,B}+\frac{A\,L^{\#}(B1)}{a^3\,B}$$

$$-\frac{\mathrm{I}\,B1\,D0}{a^3}+\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L^{\#}(L(B))}{a^3\,B}+\frac{L(A)\,B1}{a^3}+\frac{L^{\#}(B1)\,C0}{a^3\sqrt{B}}-\frac{1}{2}\,\frac{L(B)\,D0}{a^3\sqrt{B}}$$

$$+\frac{1}{2}\,\frac{L(B)\,B0\,C0}{a^3\sqrt{B}}-\frac{\frac{1}{2}\,\mathrm{I}\,C0\,L\left(L^{\#}(B)\right)}{a^3\,B}+\frac{\mathrm{I}\,B1\,B0\,C0}{a^3}+\frac{1}{2}\,\frac{S(B)}{a^3\sqrt{B}}+\frac{h1}{a^4}\Bigg)\,\sigma\wedge\zeta^{\#}$$

$$+\Bigg(\frac{D1}{a^2}-\frac{B1\,A}{a^2\sqrt{B}}+\frac{\mathrm{I}\,B1^2}{a^2}-\frac{\sqrt{B}\;L(B1)}{a^2}+\frac{1}{2}\,\frac{B1\,L(B)}{a^2\sqrt{B}}\Bigg)\,\rho\wedge\zeta+\Bigg(\frac{D1}{a^2}$$

$$-\frac{\mathrm{I}\,B0\,B1}{a^2}-\frac{L^{\#}(B1)}{a^2\sqrt{B}}-\frac{1}{2}\,\frac{L(B)\,B0}{a^2\sqrt{B}}+\frac{\frac{1}{2}\,\mathrm{I}\,L\left(L^{\#}(B)\right)}{a^2\,B}-\frac{\frac{1}{2}\,\mathrm{I}\,L^{\#}(L(B))}{a^2\,B}\Bigg)\,\rho\wedge\zeta^{\#}$$
$$+\left(\frac{\mathrm{I}\,B1}{a}+\frac{1}{2}\,\frac{L(B)}{a\sqrt{B}}\right)\zeta\wedge\zeta^{\#}$$

frame2 > *Torsion*(*SE*[4], 5, 8);

$$\frac{F0\,D0}{a^3}-\frac{C0\,D0}{a^3}+\frac{L(B)\,D0}{a^3\sqrt{B}}+\frac{D0\,A}{a^3\sqrt{B}}-\frac{L^{\#}(D0)}{a^3\sqrt{B}}-\frac{\mathrm{I}\,B0\,D0}{a^3}+\frac{\mathrm{I}\,B0^2\,C0}{a^3}-\frac{B0\,A\,C0}{a^3\sqrt{B}}$$
$$+\frac{B0\,L(A)}{a^3}+\frac{L^{\#}(B0)\,C0}{a^3\sqrt{B}}+\frac{1}{2}\,\frac{L^{\#}(B)\,B0\,C0}{a^3\,B^{3/2}}+\frac{h}{a^4} \tag{10}$$

frame2 > *Torsion*(*SE*[5], 5, 7);

$$\frac{D1\,F0}{a^3}+\frac{L(B)\,D1}{a^3\sqrt{B}}-\frac{C0\,D1}{a^3}-\frac{\sqrt{B}\,L(D1)}{a^3}+\frac{B\,B1\,exp3}{a^3}-\frac{3}{2}\,\frac{L(B)\,B1\,A}{a^3\,B}+\frac{C0\,B1\,A}{a^3\sqrt{B}} \tag{11}$$
$$+\frac{L(A)\,B1}{a^3}+\frac{A\,L(B1)}{a^3}+\frac{\mathrm{I}\,B1\,D1}{a^3}-\frac{\mathrm{I}\,B1^2\,A}{a^3\sqrt{B}}-\frac{\mathrm{I}\,B1^2\,C0}{a^3}+\frac{\sqrt{B}\,L(B1)\,C0}{a^3}$$
$$-\frac{1}{2}\,\frac{C0\,B1\,L(B)}{a^3\sqrt{B}}+\frac{h1}{a^4}$$

frame2 > *expand*(*solve*(*Torsion*(*SE*[4], 5, 8), *h*));

$$-a\,D0\,F0+a\,C0\,D0-\frac{a\,D0\,L(B)}{\sqrt{B}}-\frac{a\,D0\,A}{\sqrt{B}}+\frac{a\,L^{\#}(D0)}{\sqrt{B}}+\mathrm{I}\,a\,B0\,D0-\mathrm{I}\,a\,B0^2\,C0 \tag{12}$$
$$+\frac{a\,B0\,A\,C0}{\sqrt{B}}-a\,B0\,L(A)-\frac{a\,L^{\#}(B0)\,C0}{\sqrt{B}}-\frac{1}{2}\,\frac{a\,L^{\#}(B)\,B0\,C0}{B^{3/2}}$$

> *expand*(*solve*(*Torsion*(*SE*[5], 5, 7), *h1*));

$$-a\,D1\,F0-\frac{a\,L(B)\,D1}{\sqrt{B}}+a\,C0\,D1+a\sqrt{B}\,L(D1)-a\,B\,B1\,exp3+\frac{3}{2}\,\frac{a\,L(B)\,B1\,A}{B} \tag{13}$$
$$-\frac{a\,C0\,B1\,A}{\sqrt{B}}-a\,L(A)\,B1-a\,A\,L(B1)-\mathrm{I}\,a\,B1\,D1+\frac{\mathrm{I}\,a\,B1^2\,A}{\sqrt{B}}+\mathrm{I}\,a\,B1^2\,C0$$
$$-a\sqrt{B}\,L(B1)\,C0+\frac{1}{2}\,\frac{a\,C0\,B1\,L(B)}{\sqrt{B}}$$

frame2 >