

```
In[ ]:= Get@FileNameJoin@{NotebookDirectory[], "Calibration.m"};
```

First we import some formatting...

...okay, that's better, from now on any commentary written inside this Calibration.m wrapper will present as blue text (i.e. this text is not part of PSALTer, it is just a use-case). Next we load the PSALTer package:

```
-----  
Package xAct`xPerm` version 1.2.3, {2015, 8, 23}
```

Copyright (C) 2003–2020, Jose M. Martin-Garcia, under the General Public License.

Connecting to external linux executable...

Connection established.

```
-----  
Package xAct`xTensor` version 1.2.0, {2021, 10, 17}
```

Copyright (C) 2002–2021, Jose M. Martin-Garcia, under the General Public License.

```
-----  
Package xAct`xPert` version 1.0.6, {2018, 2, 28}
```

Copyright (C) 2005–2020, David Brizuela, Jose M. Martin-Garcia

and Guillermo A. Mena Marugan, under the General Public License.

** Variable \$PrePrint assigned value ScreenDollarIndices

** Variable \$CovDFormat changed from Prefix to Postfix

** Option AllowUpperDerivatives of ContractMetric changed from False to True

** Option MetricOn of MakeRule changed from None to All

** Option ContractMetrics of MakeRule changed from False to True

```
-----  
Package xAct`Invar` version 2.0.5, {2013, 7, 1}
```

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D. Yllanes and R. Portugal, under the General Public License.

** DefConstantSymbol: Defining constant symbol sigma.

** DefConstantSymbol: Defining constant symbol dim.

** Option CurvatureRelations of DefCovD changed from True to False

** Variable \$CommuteCovDsOnScalars changed from True to False

```
-----  
Package xAct`xCoba` version 0.8.6, {2021, 2, 28}
```

Copyright (C) 2005–2021, David Yllanes and

Jose M. Martin-Garcia, under the General Public License.

```
-----
Package xAct`SymManipulator` version 0.9.5, {2021, 9, 14}
Copyright (C) 2011–2021, Thomas Bäckdahl, under the General Public License.
```

```
-----
Package xAct`xTras` version 1.4.2, {2014, 10, 30}
Copyright (C) 2012–2014, Teake Nutma, under the General Public License.
** Variable $CovDFormat changed from Postfix to Prefix
** Option CurvatureRelations of DefCovD changed from False to True
```

```
-----
Package xAct`PSALter` version 1.0.0-developer, {2023, 4, 13}
Copyright © 2022, Will E. V. Barker, Claire
Rigouzzo and Cillian Rew, under the General Public License.
```

```
-----
These packages come with ABSOLUTELY NO WARRANTY; for details type
Disclaimer[]. This is free software, and you are welcome to redistribute
it under certain conditions. See the General Public License for details.
```

```
-----
** BuildPSALter: A rebuild of the
context binaries was requested by an edit to PSALter.m...
** DefManifold: Defining manifold M4.
** DefVBundle: Defining vbundle TangentM4.
** DefTensor: Defining symmetric metric tensor G[-a, -c].
** DefTensor: Defining antisymmetric tensor epsilonG[-a, -b, -c, -d].
** DefTensor: Defining tetrametric TetraG[-a, -b, -c, -d].
** DefTensor: Defining tetrametric TetraG†[-a, -b, -c, -d].
** DefCovD: Defining covariant derivative CD[-a].
** DefTensor: Defining vanishing torsion tensor TorsionCD[a, -b, -c].
** DefTensor: Defining symmetric Christoffel tensor ChristoffelCD[a, -b, -c].
** DefTensor: Defining vanishing Riemann tensor RiemannCD[-a, -b, -c, -d].
** DefTensor: Defining vanishing Ricci tensor RicciCD[-a, -b].
** DefTensor: Defining vanishing Ricci scalar RicciScalarCD[].
** DefTensor: Defining vanishing Einstein tensor EinsteinCD[-a, -b].
** DefTensor: Defining vanishing Weyl tensor WeylCD[-a, -b, -c, -d].
** DefTensor: Defining vanishing TFRicci tensor TFRicciCD[-a, -b].
```

```

** DefTensor: Defining vanishing Kretschmann scalar KretschmannCD[].
** DefTensor: Defining vanishing symmetrized Riemann tensor SymRiemannCD[-a, -b, -c, -d].
** DefTensor: Defining vanishing symmetric Schouten tensor SchoutenCD[-a, -b].
** DefTensor: Defining symmetric cosmological Schouten tensor SchoutenCCCD[LI[_], -a, -b].
** DefTensor: Defining symmetric cosmological Einstein tensor EinsteinCCCD[LI[_], -a, -b].
** DefTensor: Defining weight +2 density DetG[]. Determinant.
** DefTensor: Defining tensor V[-a].

Rules {1, 2} have been declared as UpValues for V.

** DefTensor: Defining tensor Eps[-a, -b, -c].
** DefConstantSymbol: Defining constant symbol Def.
** DefTensor: Defining tensor P[i].

Rules {1} have been declared as UpValues for P.

** DefBasis: Defining basis cartesian.
** DefCovD: Defining parallel derivative PDcartesian[-a].
** DefTensor: Defining torsion tensor TorsionPDcartesian[a, -b, -c].
** DefTensor: Defining non-symmetric Christoffel tensor ChristoffelPDcartesian[a, -b, -c].
** DefTensor: Defining vanishing Riemann tensor RiemannPDcartesian[-a, -b, -c, d].
** DefTensor: Defining vanishing Ricci tensor RicciPDcartesian[-a, -b].
** DefTensor: Defining antisymmetric +1 density etaUpcartesian[a, b, c, d].
** DefTensor: Defining antisymmetric -1 density etaDowncartesian[-a, -b, -c, -d].
** DefConstantSymbol: Defining constant symbol En.
** DefConstantSymbol: Defining constant symbol Mo.

Added independent rule  $k^0 \rightarrow \varepsilon$  for tensor P
Added independent rule  $k^1 \rightarrow 0$  for tensor P
Added independent rule  $k^2 \rightarrow 0$  for tensor P
Added independent rule  $k^3 \rightarrow p$  for tensor P
Added independent rule  $k_0 \rightarrow \varepsilon$  for tensor P
Added independent rule  $k_1 \rightarrow 0$  for tensor P
Added independent rule  $k_2 \rightarrow 0$  for tensor P
Added independent rule  $k_3 \rightarrow -p$  for tensor P

```

Added independent rule $\eta^{00} \rightarrow 1$ for tensor G

Added independent rule $\eta^{01} \rightarrow 0$ for tensor G

Added independent rule $\eta^{02} \rightarrow 0$ for tensor G

Added independent rule $\eta^{03} \rightarrow 0$ for tensor G

Added dependent rule $\eta^{10} \rightarrow \eta^{01}$ for tensor G

Added independent rule $\eta^{11} \rightarrow -1$ for tensor G

Added independent rule $\eta^{12} \rightarrow 0$ for tensor G

Added independent rule $\eta^{13} \rightarrow 0$ for tensor G

Added dependent rule $\eta^{20} \rightarrow \eta^{02}$ for tensor G

Added dependent rule $\eta^{21} \rightarrow \eta^{12}$ for tensor G

Added independent rule $\eta^{22} \rightarrow -1$ for tensor G

Added independent rule $\eta^{23} \rightarrow 0$ for tensor G

Added dependent rule $\eta^{30} \rightarrow \eta^{03}$ for tensor G

Added dependent rule $\eta^{31} \rightarrow \eta^{13}$ for tensor G

Added dependent rule $\eta^{32} \rightarrow \eta^{23}$ for tensor G

Added independent rule $\eta^{33} \rightarrow -1$ for tensor G

Added independent rule $\eta_{00} \rightarrow 1$ for tensor G

Added independent rule $\eta_{01} \rightarrow 0$ for tensor G

Added independent rule $\eta_{02} \rightarrow 0$ for tensor G

Added independent rule $\eta_{03} \rightarrow 0$ for tensor G

Added dependent rule $\eta_{10} \rightarrow \eta_{01}$ for tensor G

Added independent rule $\eta_{11} \rightarrow -1$ for tensor G

Added independent rule $\eta_{12} \rightarrow 0$ for tensor G

Added independent rule $\eta_{13} \rightarrow 0$ for tensor G

Added dependent rule $\eta_{20} \rightarrow \eta_{02}$ for tensor G

Added dependent rule $\eta_{21} \rightarrow \eta_{12}$ for tensor G

Added independent rule $\eta_{22} \rightarrow -1$ for tensor G

Added independent rule $\eta_{23} \rightarrow 0$ for tensor G

Added dependent rule $\eta_{30} \rightarrow \eta_{03}$ for tensor G

Added dependent rule $\eta_{31} \rightarrow \eta_{13}$ for tensor G

Added dependent rule $\eta_{32} \rightarrow \eta_{23}$ for tensor G

Added independent rule $\eta_{33} \rightarrow -1$ for tensor G

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** DefConstantSymbol: Defining constant symbol X1.
** DefConstantSymbol: Defining constant symbol X1†.
** DefConstantSymbol: Defining constant symbol X2.
** DefConstantSymbol: Defining constant symbol X2†.
** DefConstantSymbol: Defining constant symbol X3.
** DefConstantSymbol: Defining constant symbol X3†.
** DefConstantSymbol: Defining constant symbol X4.
** DefConstantSymbol: Defining constant symbol X4†.
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** DefConstantSymbol: Defining constant symbol X5†.
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** DefConstantSymbol: Defining constant symbol X6†.
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** DefConstantSymbol: Defining constant symbol X8†.
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** DefConstantSymbol: Defining constant symbol X9†.
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** DefConstantSymbol: Defining constant symbol X11†.
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** DefConstantSymbol: Defining constant symbol X14.  
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** DefConstantSymbol: Defining constant symbol X15†.  
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** DefConstantSymbol: Defining constant symbol X16†.  
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** DefConstantSymbol: Defining constant symbol X17†.  
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** DefConstantSymbol: Defining constant symbol X18†.  
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** DefConstantSymbol: Defining constant symbol X20†.  
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** DefConstantSymbol: Defining constant symbol X25†.  
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** DefConstantSymbol: Defining constant symbol X26†.  
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** DefConstantSymbol: Defining constant symbol X28†.  
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** DefConstantSymbol: Defining constant symbol X30.  
** DefConstantSymbol: Defining constant symbol X30†.  
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** DefConstantSymbol: Defining constant symbol X37†.  
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** DefConstantSymbol: Defining constant symbol X40†.  
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** DefConstantSymbol: Defining constant symbol X41†.  
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** DefConstantSymbol: Defining constant symbol X42†.  
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** DefConstantSymbol: Defining constant symbol X43†.  
** DefConstantSymbol: Defining constant symbol X44.  
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** DefConstantSymbol: Defining constant symbol X45†.
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** DefConstantSymbol: Defining constant symbol X46.  
** DefConstantSymbol: Defining constant symbol X46†.  
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** DefConstantSymbol: Defining constant symbol X50†.  
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** DefConstantSymbol: Defining constant symbol X52†.  
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** DefConstantSymbol: Defining constant symbol X53†.  
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** DefConstantSymbol: Defining constant symbol X54†.  
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** DefConstantSymbol: Defining constant symbol X56†.  
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** DefConstantSymbol: Defining constant symbol X58†.  
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** DefConstantSymbol: Defining constant symbol X61†.
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** DefConstantSymbol: Defining constant symbol X62.  
** DefConstantSymbol: Defining constant symbol X62†.  
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** DefConstantSymbol: Defining constant symbol X65†.  
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** DefConstantSymbol: Defining constant symbol X78.  
** DefConstantSymbol: Defining constant symbol X78†.  
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** DefConstantSymbol: Defining constant symbol X91†.  
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** DefConstantSymbol: Defining constant symbol X92†.  
** DefConstantSymbol: Defining constant symbol X93.  
** DefConstantSymbol: Defining constant symbol X93†.
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** DefConstantSymbol: Defining constant symbol X94.
** DefConstantSymbol: Defining constant symbol X94†.
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** DefConstantSymbol: Defining constant symbol X97†.
** DefConstantSymbol: Defining constant symbol X98.
** DefConstantSymbol: Defining constant symbol X98†.
** DefConstantSymbol: Defining constant symbol X99.
** DefConstantSymbol: Defining constant symbol X99†.
** DefConstantSymbol: Defining constant symbol X100.
** DefConstantSymbol: Defining constant symbol X100†.
** DefTensor: Defining tensor Phi[].
** DefTensor: Defining tensor Phi†[].
** DefTensor: Defining tensor Rho[].
** DefTensor: Defining tensor Rho†[].
** DefTensor: Defining tensor Phi0p[].
** DefTensor: Defining tensor Phi0p†[].
** DefTensor: Defining tensor Rho0p[].
** DefTensor: Defining tensor Rho0p†[].
** DefConstantSymbol: Defining constant symbol Coupling1.
** DefConstantSymbol: Defining constant symbol Coupling2.
** DefConstantSymbol: Defining constant symbol Coupling3.
** DefClass: The information presented below will be stored in the association
  ScalarTheory, so you will be able to recover it later in your session by typing "
  ScalarTheory[<--some_association_key-->]".
** DefClass: expanding fundamental field Phi into reduced-index modes and decomposing
  reduced-index modes back into fundamental fields (should return original).

 $\varphi$ 
 $\varphi^\dagger$ 
 $\varphi$ 

```

**** DefClass:** expanding reduced-index mode Φ_{0p} into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

Φ

Φ

Φ

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`EvenEven\$7577 will now be printed.

$\{\{\Phi \Phi^\dagger\}\}$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`EvenOdd\$7577 will now be printed.

$\{\}$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`OddEven\$7577 will now be printed.

$\{\}$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`OddOdd\$7577 will now be printed.

$\{\}$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`InvariantMatrixValue\$7577[xAct`PSALter`Private`Spin] will now be printed.

$((\Phi \Phi^\dagger))$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`MaskMatrixValue\$7577[xAct`PSALter`Private`Spin] will now be printed.

(1)

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`AntiMaskMatrixValue\$7577[xAct`PSALter`Private`Spin] will now be printed.

$\langle | \text{Even} \rightarrow \{1\}, \text{Odd} \rightarrow \{0\} \rangle$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`Expr\$7624 will now be printed.

$\Phi \Phi^\dagger$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable xAct`PSALter`Private`OriginalTerms\$7624 will now be printed.

$\{\Phi \Phi^\dagger\}$

```

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$7624 will now be printed.
 $\varphi^{\theta^*} \varphi^{\theta^*} \varphi^{\dagger} - \varphi \varphi^{\dagger}$ 

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$7624 will now be printed.
Phi0pRescalingSymbol2  $\varphi^{\theta^*} \varphi^{\theta^*} \varphi^{\dagger} - \varphi \varphi^{\dagger}$ 

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$7624 will now be printed.
Phi0pRescalingSymbol  $\varphi^{\theta^*} \varphi^{\theta^*} \varphi^{\dagger} - \varphi \varphi^{\dagger}$ 

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$7624 will now be printed.
 $(-1 + \text{Phi0pRescalingSymbol}) \varphi \varphi^{\dagger}$ 

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`SystemOfEquations$7624 will now be printed.
-1 + Phi0pRescalingSymbol == 0

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`RescalingSolutionsValue will now be printed.
{Phi0pRescalingSymbol → 1}

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`RescalingSolutionsValue will now be printed.
{Phi0pRescalingSymbol → 1}

** DefClass: Exporting the binary at ScalarTheory.cla.mx

** DefTensor: Defining tensor B[-d].
** DefTensor: Defining tensor B†[-d].
** DefTensor: Defining tensor J[-d].
** DefTensor: Defining tensor J†[-d].
** DefTensor: Defining tensor ProjPerp[-a, -b].
** DefTensor: Defining tensor ProjPara[-a, -b].
** DefTensor: Defining tensor B0p[].
** DefTensor: Defining tensor B0p†[].
** DefTensor: Defining tensor B1m[-a].
** DefTensor: Defining tensor B1m†[-a].
** DefTensor: Defining tensor J0p[].
** DefTensor: Defining tensor J0p†[].

```

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** DefTensor: Defining tensor J1m[-a].
** DefTensor: Defining tensor J1mt[-a].
** DefConstantSymbol: Defining constant symbol Coupling1.
** DefConstantSymbol: Defining constant symbol Coupling2.
** DefConstantSymbol: Defining constant symbol Coupling3.
** DefClass: The information presented below will be stored in the association
VectorTheory, so you will be able to recover it later in your session by typing "
VectorTheory[<--some_association_key-->]".
** DefClass: expanding fundamental field B into reduced-index modes and decomposing
reduced-index modes back into fundamental fields (should return original).

```

$$\mathcal{B}_a$$

$$\mathcal{B}_a + \mathcal{B} n_a$$

$$\mathcal{B}_a$$

```

** DefClass: expanding reduced-index mode B0p into fundamental field and decomposing
fundamental field back into reduced-index modes (should return original).

```

$$\mathcal{B}$$

$$\mathcal{B}^a n_a$$

$$\mathcal{B}$$

```

** DefClass: expanding reduced-index mode B1m into fundamental field and decomposing
fundamental field back into reduced-index modes (should return original).

```

$$\mathcal{B}_a$$

$$\mathcal{B}_a - \mathcal{B}^b n_a n_b$$

$$\mathcal{B}_a$$

```

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenEven$8071 will now be printed.

```

$$\{\{\mathcal{B}^a \mathcal{B}_a\}\}$$

```

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenOdd$8071 will now be printed.

```

$$\{\}$$

```

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`OddEven$8071 will now be printed.

```

$$\{\}$$

```

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`OddOdd$8071 will now be printed.
{}

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`InvariantMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
(( $\mathcal{B}^0 \mathcal{B}^\dagger$ ))

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`MaskMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
(1)

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`AntiMaskMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
<|Even → {1}, Odd → {0}|>

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenEven$8071 will now be printed.
{}

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenOdd$8071 will now be printed.
{}

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`OddEven$8071 will now be printed.
{}

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`OddOdd$8071 will now be printed.
{{ $\mathcal{B}^a \mathcal{B}^\dagger_a$ }}

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`InvariantMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
(( $\mathcal{B}^a \mathcal{B}^\dagger_a$ ))

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`MaskMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
(1)

```

```

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`AntiMaskMatrixValue$8071[xAct`PSALter`Private`Spin]
will now be printed.
<|Even → {0}, Odd → {1}|>

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$8156 will now be printed.

$$\mathcal{B}^0 \cdot \mathcal{B}^0 \mathcal{B}^\dagger + \mathcal{B}^1 \cdot \mathcal{B}^0 \mathcal{B}^\dagger_a$$


** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`OriginalTerms$8156 will now be printed.

$$\{\mathcal{B}^0 \mathcal{B}^\dagger_a\}$$


** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$8156 will now be printed.

$$\mathcal{B}^0 \cdot \mathcal{B}^0 \mathcal{B}^\dagger + \mathcal{B}^1 \cdot \mathcal{B}^0 \mathcal{B}^\dagger_a - \mathcal{B}^0 \mathcal{B}^\dagger_a$$


** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$8156 will now be printed.

$$\text{B0pRescalingSymbol}^2 \mathcal{B}^0 \cdot \mathcal{B}^0 \mathcal{B}^\dagger + \text{B1mRescalingSymbol}^2 \mathcal{B}^1 \cdot \mathcal{B}^0 \mathcal{B}^\dagger_a - \mathcal{B}^0 \mathcal{B}^\dagger_a$$


** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$8156 will now be printed.

$$\text{B0pRescalingSymbol} \mathcal{B}^0 \cdot \mathcal{B}^0 \mathcal{B}^\dagger + \text{B1mRescalingSymbol} \mathcal{B}^1 \cdot \mathcal{B}^0 \mathcal{B}^\dagger_a - \mathcal{B}^0 \mathcal{B}^\dagger_a$$


** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr$8156 will now be printed.

$$(-1 + \text{B1mRescalingSymbol}) \mathcal{B}^0 \mathcal{B}^\dagger_a + (\text{B0pRescalingSymbol} - \text{B1mRescalingSymbol}) \mathcal{B}^0 \mathcal{B}^\dagger^b n_a n_b$$


** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`SystemOfEquations$8156 will now be printed.

$$\text{B0pRescalingSymbol} - \text{B1mRescalingSymbol} == 0 \ \&\& \ -1 + \text{B1mRescalingSymbol} == 0$$


** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`RescalingSolutionsValue will now be printed.
{B0pRescalingSymbol → 1, B1mRescalingSymbol → 1}

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`RescalingSolutionsValue will now be printed.
{B0pRescalingSymbol → 1, B1mRescalingSymbol → 1}

** DefClass: Exporting the binary at VectorTheory.cla.mx

** DefTensor: Defining tensor LinearMetric[-a, -b].

** DefTensor: Defining tensor LinearMetric†[-a, -b].

```



```

** DefTensor: Defining tensor StressEnergy[-a, -b].
** DefTensor: Defining tensor StressEnergy†[-a, -b].
** DefTensor: Defining tensor Connection[-i, -j, -a].
** DefTensor: Defining tensor Connection†[-i, -j, -a].
** DefTensor: Defining tensor Dilatospin[-i, -j, -a].
** DefTensor: Defining tensor Dilatospin†[-i, -j, -a].
** DefTensor: Defining tensor A[a, c, -d].
** DefTensor: Defining tensor A†[a, c, -d].
** DefTensor: Defining tensor Y[-i, -j, -k].
** DefTensor: Defining tensor Y†[-i, -j, -k].
** DefTensor: Defining tensor Q[-i, -j, -a].
** DefTensor: Defining tensor Q†[-i, -j, -a].
** DefTensor: Defining tensor Z[-i, -j, -a].
** DefTensor: Defining tensor Z†[-i, -j, -a].
** DefTensor: Defining tensor totsyzmQZ[k, l, b, -i, -j, -a].
** DefTensor: Defining tensor remsyzmQZ[k, l, b, -i, -j, -a].
    Rules {1} have been declared as DownValues for totsyzmQZ.
    Rules {1} have been declared as DownValues for remsyzmQZ.
** DefTensor: Defining tensor ProjPerp[-a, -b].
** DefTensor: Defining tensor ProjPara[-a, -b].
    Rules {1} have been declared as DownValues for ProjPerp.
    Rules {1} have been declared as DownValues for ProjPara.
** DefTensor: Defining tensor ProjAPerp[-a, -b, d, e, f].
** DefTensor: Defining tensor ProjAPara[-a, -b, -c, d, e, f].
** DefTensor: Defining tensor ProjFPerp[-a, d, e].
** DefTensor: Defining tensor ProjFPara[-a, -b, d, e].
** DefTensor: Defining tensor ProjA0p[c, d].
** DefTensor: Defining tensor ProjA0m[d, e, f].
** DefTensor: Defining tensor ProjA1p[-a, -b, c, d].
** DefTensor: Defining tensor ProjA1m[-a, d, e, f].
** DefTensor: Defining tensor ProjA2p[-a, -b, c, d].
** DefTensor: Defining tensor ProjA2m[-a, -b, -c, d, e, f].

```

```

** DefTensor: Defining tensor APara[-a, -b, -c].
** DefTensor: Defining tensor APara†[-a, -b, -c].
** DefTensor: Defining tensor APerp[-a, -b].
** DefTensor: Defining tensor APerp†[-a, -b].
** DefTensor: Defining tensor YPara[-c, -a, -b].
** DefTensor: Defining tensor YPara†[-c, -a, -b].
** DefTensor: Defining tensor YPerp[-a, -b].
** DefTensor: Defining tensor YPerp†[-a, -b].
** DefTensor: Defining tensor QPerpT0pF[-i, -j, -a].
** DefTensor: Defining tensor QPerpT0pF†[-i, -j, -a].
** DefTensor: Defining tensor QPerpT1mF[-i, -j, -a].
** DefTensor: Defining tensor QPerpT1mF†[-i, -j, -a].
** DefTensor: Defining tensor QPara0pF[-i, -j, -a].
** DefTensor: Defining tensor QPara0pF†[-i, -j, -a].
** DefTensor: Defining tensor QPara2pF[-i, -j, -a].
** DefTensor: Defining tensor QPara2pF†[-i, -j, -a].
** DefTensor: Defining tensor QParaT1mF[-i, -j, -a].
** DefTensor: Defining tensor QParaT1mF†[-i, -j, -a].
** DefTensor: Defining tensor QPara3mF[-i, -j, -a].
** DefTensor: Defining tensor QPara3mF†[-i, -j, -a].
** DefTensor: Defining tensor QPerpH1mF[-i, -j, -a].
** DefTensor: Defining tensor QPerpH1mF†[-i, -j, -a].
** DefTensor: Defining tensor QPara1pF[-i, -j, -a].
** DefTensor: Defining tensor QPara1pF†[-i, -j, -a].
** DefTensor: Defining tensor QPerpH0pF[-i, -j, -a].
** DefTensor: Defining tensor QPerpH0pF†[-i, -j, -a].
** DefTensor: Defining tensor QPerp2pF[-i, -j, -a].
** DefTensor: Defining tensor QPerp2pF†[-i, -j, -a].
** DefTensor: Defining tensor QParaH1mF[-i, -j, -a].
** DefTensor: Defining tensor QParaH1mF†[-i, -j, -a].
** DefTensor: Defining tensor QPara2mF[-i, -j, -a].
** DefTensor: Defining tensor QPara2mF†[-i, -j, -a].

```

```

** DefTensor: Defining tensor ZPerpT0pF[-i, -j, -a].
** DefTensor: Defining tensor ZPerpT0pF†[-i, -j, -a].
** DefTensor: Defining tensor ZPerpT1mF[-i, -j, -a].
** DefTensor: Defining tensor ZPerpT1mF†[-i, -j, -a].
** DefTensor: Defining tensor ZPara0pF[-i, -j, -a].
** DefTensor: Defining tensor ZPara0pF†[-i, -j, -a].
** DefTensor: Defining tensor ZPara2pF[-i, -j, -a].
** DefTensor: Defining tensor ZPara2pF†[-i, -j, -a].
** DefTensor: Defining tensor ZParaT1mF[-i, -j, -a].
** DefTensor: Defining tensor ZParaT1mF†[-i, -j, -a].
** DefTensor: Defining tensor ZPara3mF[-i, -j, -a].
** DefTensor: Defining tensor ZPara3mF†[-i, -j, -a].
** DefTensor: Defining tensor ZPerpH1mF[-i, -j, -a].
** DefTensor: Defining tensor ZPerpH1mF†[-i, -j, -a].
** DefTensor: Defining tensor ZPara1pF[-i, -j, -a].
** DefTensor: Defining tensor ZPara1pF†[-i, -j, -a].
** DefTensor: Defining tensor ZPerpH0pF[-i, -j, -a].
** DefTensor: Defining tensor ZPerpH0pF†[-i, -j, -a].
** DefTensor: Defining tensor ZPerp2pF[-i, -j, -a].
** DefTensor: Defining tensor ZPerp2pF†[-i, -j, -a].
** DefTensor: Defining tensor ZParaH1mF[-i, -j, -a].
** DefTensor: Defining tensor ZParaH1mF†[-i, -j, -a].
** DefTensor: Defining tensor ZPara2mF[-i, -j, -a].
** DefTensor: Defining tensor ZPara2mF†[-i, -j, -a].
** DefTensor: Defining tensor LinearMetricPerp0p[].
** DefTensor: Defining tensor LinearMetricPerp0p†[].
** DefTensor: Defining tensor LinearMetricPerp1m[-a].
** DefTensor: Defining tensor LinearMetricPerp1m†[-a].
** DefTensor: Defining tensor LinearMetricPara0p[].
** DefTensor: Defining tensor LinearMetricPara0p†[].
** DefTensor: Defining tensor LinearMetricPara2p[-a, -b].
** DefTensor: Defining tensor LinearMetricPara2p†[-a, -b].

```

Rules {1, 1, 2, 1} have been declared as UpValues for LinearMetricPara2p.

Rules {1, 2} have been declared as DownValues for LinearMetricPara2p.

** DefTensor: Defining tensor StressEnergyPerp0p[].

** DefTensor: Defining tensor StressEnergyPerp0pt[].

** DefTensor: Defining tensor StressEnergyPerp1m[-a].

** DefTensor: Defining tensor StressEnergyPerp1mt[-a].

** DefTensor: Defining tensor StressEnergyPara0p[].

** DefTensor: Defining tensor StressEnergyPara0pt[].

** DefTensor: Defining tensor StressEnergyPara2p[-a, -b].

** DefTensor: Defining tensor StressEnergyPara2pt[-a, -b].

Rules {1, 1, 2, 1} have been declared as UpValues for StressEnergyPara2p.

Rules {1, 2} have been declared as DownValues for StressEnergyPara2p.

** DefTensor: Defining tensor APara0p[].

** DefTensor: Defining tensor APara0pt[].

** DefTensor: Defining tensor APara0m[].

** DefTensor: Defining tensor APara0mt[].

** DefTensor: Defining tensor APara1p[-a, -b].

** DefTensor: Defining tensor APara1pt[-a, -b].

** DefTensor: Defining tensor APara1m[-a].

** DefTensor: Defining tensor APara1mt[-a].

** DefTensor: Defining tensor APara2p[-a, -b].

** DefTensor: Defining tensor APara2pt[-a, -b].

** DefTensor: Defining tensor APara2m[-a, -b, -c].

** DefTensor: Defining tensor APara2mt[-a, -b, -c].

Rules {1, 1, 2, 1, 3, 1, 4, 1} have been declared as UpValues for APara2m.

Rules {1, 1, 2, 1, 3, 1, 4, 1, 5, 1, <<758>>} have been declared as UpValues for APara2m.

Rules {1, 1, 2, 1} have been declared as UpValues for APara2p.

Rules {1, 2, 3, 4} have been declared as DownValues for APara2m.

Rules {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, <<374>>} have been declared as UpValues for APara2m.

Rules {1, 2} have been declared as DownValues for APara2p.

** DefTensor: Defining tensor YPara0p[].

** DefTensor: Defining tensor YPara0pt[].

```

** DefTensor: Defining tensor YPara0m[].
** DefTensor: Defining tensor YPara0mt[].
** DefTensor: Defining tensor YPara1p[-a, -b].
** DefTensor: Defining tensor YPara1pt[-a, -b].
** DefTensor: Defining tensor YPara1m[-a].
** DefTensor: Defining tensor YPara1mt[-a].
** DefTensor: Defining tensor YPara2p[-a, -b].
** DefTensor: Defining tensor YPara2pt[-a, -b].
** DefTensor: Defining tensor YPara2m[-a, -b, -c].
** DefTensor: Defining tensor YPara2mt[-a, -b, -c].

Rules {1, 1, 2, 1, 3, 1, 4, 1} have been declared as UpValues for YPara2m.
Rules {1, 1, 2, 1, 3, 1, 4, 1, 5, 1, <<758>>} have been declared as UpValues for YPara2m.
Rules {1, 1, 2, 1} have been declared as UpValues for YPara2p.
Rules {1, 2, 3, 4} have been declared as DownValues for YPara2m.
Rules {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, <<374>>} have been declared as UpValues for YPara2m.
Rules {1, 2} have been declared as DownValues for YPara2p.

** DefTensor: Defining tensor QPerpT0p[].
** DefTensor: Defining tensor QPerpT0pt[].
** DefTensor: Defining tensor QPerpT1m[-i].
** DefTensor: Defining tensor QPerpT1mt[-i].
** DefTensor: Defining tensor QPara0p[].
** DefTensor: Defining tensor QPara0pt[].
** DefTensor: Defining tensor QPara2p[-i, -j].
** DefTensor: Defining tensor QPara2pt[-i, -j].
** DefTensor: Defining tensor QParaT1m[-i].
** DefTensor: Defining tensor QParaT1mt[-i].
** DefTensor: Defining tensor QPara3m[-i, -j, -a].
** DefTensor: Defining tensor QPara3mt[-i, -j, -a].
** DefTensor: Defining tensor QPerpH1m[-i].
** DefTensor: Defining tensor QPerpH1mt[-i].
** DefTensor: Defining tensor QPara1p[-i, -a].
** DefTensor: Defining tensor QPara1pt[-i, -a].

```

```

** DefTensor: Defining tensor QPerpH0p[].
** DefTensor: Defining tensor QPerpH0pt[].
** DefTensor: Defining tensor QPerp2p[-i, -j].
** DefTensor: Defining tensor QPerp2pt[-i, -j].
** DefTensor: Defining tensor QParaH1m[-i].
** DefTensor: Defining tensor QParaH1mt[-i].
** DefTensor: Defining tensor QPara2m[-i, -j, -a].
** DefTensor: Defining tensor QPara2mt[-i, -j, -a].
** DefTensor: Defining tensor ZPerpT0p[].
** DefTensor: Defining tensor ZPerpT0pt[].
** DefTensor: Defining tensor ZPerpT1m[-i].
** DefTensor: Defining tensor ZPerpT1mt[-i].
** DefTensor: Defining tensor ZPara0p[].
** DefTensor: Defining tensor ZPara0pt[].
** DefTensor: Defining tensor ZPara2p[-i, -j].
** DefTensor: Defining tensor ZPara2pt[-i, -j].
** DefTensor: Defining tensor ZParaT1m[-i].
** DefTensor: Defining tensor ZParaT1mt[-i].
** DefTensor: Defining tensor ZPara3m[-i, -j, -a].
** DefTensor: Defining tensor ZPara3mt[-i, -j, -a].
** DefTensor: Defining tensor ZPerpH1m[-i].
** DefTensor: Defining tensor ZPerpH1mt[-i].
** DefTensor: Defining tensor ZPara1p[-i, -a].
** DefTensor: Defining tensor ZPara1pt[-i, -a].
** DefTensor: Defining tensor ZPerpH0p[].
** DefTensor: Defining tensor ZPerpH0pt[].
** DefTensor: Defining tensor ZPerp2p[-i, -j].
** DefTensor: Defining tensor ZPerp2pt[-i, -j].
** DefTensor: Defining tensor ZParaH1m[-i].
** DefTensor: Defining tensor ZParaH1mt[-i].
** DefTensor: Defining tensor ZPara2m[-i, -j, -a].
** DefTensor: Defining tensor ZPara2mt[-i, -j, -a].

```

```

** DefTensor: Defining tensor APerp1p[-a, -b].
** DefTensor: Defining tensor APerp1p†[-a, -b].
** DefTensor: Defining tensor APerp1m[-a].
** DefTensor: Defining tensor APerp1m†[-a].
** DefTensor: Defining tensor YPerp1p[-a, -b].
** DefTensor: Defining tensor YPerp1p†[-a, -b].
** DefTensor: Defining tensor YPerp1m[-a].
** DefTensor: Defining tensor YPerp1m†[-a].

Rules {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, <<22>>} have been declared as UpValues for APara2m.
Rules {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, <<22>>} have been declared as UpValues for APara2m†.
** DefConstantSymbol: Defining constant symbol A0.
** DefClass: The information presented below will be stored in the association
MetricAffineGaugeTheory
, so you will be able to recover it later in your session by typing "
MetricAffineGaugeTheory[<--some_association_key-->]".
** DefClass: expanding fundamental field LinearMetric into reduced-index modes and
decomposing reduced-index modes back into fundamental fields (should return original).

```

$$h_{ab}$$

$$\frac{1}{3} \eta_{ab} \overset{0+}{\cdot} h^{\parallel} + \overset{2+}{\cdot} h^{\parallel}_{ab} + \overset{1-}{\cdot} h^{\perp}_b n_a + \overset{1-}{\cdot} h^{\perp}_a n_b - \frac{1}{3} \overset{0+}{\cdot} h^{\parallel} n_a n_b + \overset{0+}{\cdot} h^{\perp} n_a n_b$$

$$h_{ab}$$

```

** DefClass: expanding reduced-index mode LinearMetricPerp0p into fundamental field and
decomposing fundamental field back into reduced-index modes (should return original).

```

$$\overset{0+}{\cdot} h^{\perp}$$

$$h_{ab} n^a n^b$$

$$\overset{0+}{\cdot} h^{\perp}$$

```

** DefClass: expanding reduced-index mode LinearMetricPara0p into fundamental field and
decomposing fundamental field back into reduced-index modes (should return original).

```

$$\overset{0+}{\cdot} h^{\parallel}$$

$$h^a_a - h_{ab} n^a n^b$$

$$\overset{0+}{\cdot} h^{\parallel}$$

```

** DefClass: expanding reduced-index mode LinearMetricPerp1m into fundamental field and
decomposing fundamental field back into reduced-index modes (should return original).

```

$$\overset{1-}{\cdot} h^{\perp}_a$$

$$h_{ab} n^b - h_{bc} n_a n^b n^c$$

$$\overset{1}{\cdot} h^{\perp}_a$$

**** DefClass:** expanding reduced-index mode LinearMetricPara2p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$\overset{2}{\cdot} h^{\parallel}_{ab}$$

$$h_{ab} - \frac{1}{3} \eta_{ab} h^c_c + \frac{1}{3} h^c_c n_a n_b - h_{bc} n_a n^c - h_{ac} n_b n^c + \frac{1}{3} \eta_{ab} h_{cd} n^c n^d + \frac{2}{3} h_{cd} n_a n_b n^c n^d$$

$$\overset{2}{\cdot} h^{\parallel}_{ab}$$

**** DefClass:** expanding fundamental field Connection into reduced-index modes and decomposing reduced-index modes back into fundamental fields (should return original).

$$C_{abc}$$

$$\begin{aligned} & \frac{4}{3} \overset{2}{\cdot} \mathcal{A}^{\parallel}_{bca} + \frac{1}{2} \overset{1}{\cdot} \mathcal{A}^{\parallel}_c \eta_{ab} - \frac{1}{2} \overset{1}{\cdot} \mathcal{A}^{\parallel}_b \eta_{ac} + \overset{2}{\cdot} Q^{\parallel}_{bca} + \overset{3}{\cdot} Q^{\parallel}_{abc} + \frac{1}{3} \eta_{bc} \overset{1}{\cdot} Q^{\parallel h}_a - \frac{1}{6} \eta_{ac} \overset{1}{\cdot} Q^{\parallel h}_b - \\ & \frac{1}{6} \eta_{ab} \overset{1}{\cdot} Q^{\parallel h}_c + \frac{1}{15} \eta_{bc} \overset{1}{\cdot} Q^{\parallel t}_a + \frac{1}{15} \eta_{ac} \overset{1}{\cdot} Q^{\parallel t}_b + \frac{1}{15} \eta_{ab} \overset{1}{\cdot} Q^{\parallel t}_c + \overset{1}{\cdot} \mathcal{A}^{\perp}_{bc} n_a + \frac{1}{9} \eta_{bc} \overset{0}{\cdot} Q^{\parallel} n_a + \\ & \frac{1}{3} \overset{2}{\cdot} Q^{\parallel}_{bc} n_a + \frac{2}{3} \overset{2}{\cdot} Q^{\perp}_{bc} n_a + \frac{2}{9} \eta_{bc} \overset{0}{\cdot} Q^{\parallel h} n_a - \overset{1}{\cdot} \mathcal{A}^{\parallel}_{ac} n_b + \overset{2}{\cdot} \mathcal{A}^{\parallel}_{ac} n_b + \frac{1}{3} \overset{0}{\cdot} \mathcal{A}^{\parallel} \eta_{ac} n_b + \\ & \frac{1}{9} \eta_{ac} \overset{0}{\cdot} Q^{\parallel} n_b - \frac{1}{2} \overset{1}{\cdot} Q^{\perp}_{ac} n_b + \frac{1}{3} \overset{2}{\cdot} Q^{\parallel}_{ac} n_b - \frac{1}{3} \overset{2}{\cdot} Q^{\perp}_{ac} n_b - \frac{1}{9} \eta_{ac} \overset{0}{\cdot} Q^{\parallel h} n_b - \frac{1}{2} \overset{1}{\cdot} \mathcal{A}^{\parallel}_c n_a n_b - \\ & \overset{1}{\cdot} \mathcal{A}^{\perp}_c n_a n_b + \frac{1}{6} \overset{1}{\cdot} Q^{\parallel h}_c n_a n_b - \frac{1}{15} \overset{1}{\cdot} Q^{\parallel t}_c n_a n_b - \frac{1}{3} \overset{1}{\cdot} Q^{\parallel h}_c n_a n_b + \frac{1}{3} \overset{1}{\cdot} Q^{\perp t}_c n_a n_b + \\ & \overset{1}{\cdot} \mathcal{A}^{\parallel}_{ab} n_c - \overset{2}{\cdot} \mathcal{A}^{\parallel}_{ab} n_c - \frac{1}{3} \overset{0}{\cdot} \mathcal{A}^{\parallel} \eta_{ab} n_c + \frac{1}{9} \eta_{ab} \overset{0}{\cdot} Q^{\parallel} n_c - \frac{1}{2} \overset{1}{\cdot} Q^{\perp}_{ab} n_c + \frac{1}{3} \overset{2}{\cdot} Q^{\parallel}_{ab} n_c - \\ & \frac{1}{3} \overset{2}{\cdot} Q^{\perp}_{ab} n_c - \frac{1}{9} \eta_{ab} \overset{0}{\cdot} Q^{\parallel h} n_c + \frac{1}{2} \overset{1}{\cdot} \mathcal{A}^{\parallel}_b n_a n_c + \overset{1}{\cdot} \mathcal{A}^{\perp}_b n_a n_c + \frac{1}{6} \overset{1}{\cdot} Q^{\parallel h}_b n_a n_c - \\ & \frac{1}{15} \overset{1}{\cdot} Q^{\parallel t}_b n_a n_c - \frac{1}{3} \overset{1}{\cdot} Q^{\parallel h}_b n_a n_c + \frac{1}{3} \overset{1}{\cdot} Q^{\perp t}_b n_a n_c - \frac{1}{3} \overset{1}{\cdot} Q^{\parallel h}_a n_b n_c - \frac{1}{15} \overset{1}{\cdot} Q^{\parallel t}_a n_b n_c + \\ & \frac{2}{3} \overset{1}{\cdot} Q^{\parallel h}_a n_b n_c + \frac{1}{3} \overset{1}{\cdot} Q^{\perp t}_a n_b n_c - \frac{1}{3} \overset{0}{\cdot} Q^{\parallel} n_a n_b n_c + \overset{0}{\cdot} Q^{\perp t} n_a n_b n_c - \frac{1}{6} \overset{0}{\cdot} \mathcal{A}^{\parallel} \epsilon \eta_{abcd} n^d \end{aligned}$$

$$C_{abc} - C^{\text{de}}_c n_a n_b n_d n_e + \frac{1}{2} C^{\text{de}}_c n_a n_b n_d n_e + \frac{1}{2} C^{\text{de}}_c n_a n_b n_d n_e -$$

$$C^{\text{de}}_b n_a n_c n_d n_e + \frac{1}{2} C^{\text{de}}_b n_a n_c n_d n_e + \frac{1}{2} C^{\text{de}}_b n_a n_c n_d n_e +$$

$$2 C^{\text{de}}_a n_b n_c n_d n_e - C^{\text{de}}_a n_b n_c n_d n_e - C^{\text{de}}_a n_b n_c n_d n_e$$

**** DefClass:** expanding reduced-index mode APara0p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$\overset{0}{\cdot} \mathcal{A}^{\parallel}$$

$$-\frac{1}{2} C^{\text{ab}}_a n_b + \frac{1}{2} C^{\text{ab}}_a n_b$$

\mathcal{A}^{\parallel}

DefClass: expanding reduced-index mode QPerpT0p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$Q^{\perp t}$

$$C^{abc} n_a n_b n_c$$

$Q^{\perp t}$

DefClass: expanding reduced-index mode QPara0p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

Q^{\parallel}

$$C^{ab}{}_b n_a + C^{a b}{}_a n_b + C^{ab}{}_a n_b - 3 C^{abc} n_a n_b n_c$$

$Q^{\parallel} + 2 Q^{\perp a}{}_a$

DefClass: expanding reduced-index mode QPerpH0p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$Q^{\perp h}$

$$C^{ab}{}_b n_a - \frac{1}{2} C^{a b}{}_a n_b - \frac{1}{2} C^{ab}{}_a n_b$$

$2 Q^{\perp a}{}_a + Q^{\perp h}$

DefClass: expanding reduced-index mode APara0m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{A}^{\parallel}

$$C^{abc} \epsilon_{abcd} n^d$$

\mathcal{A}^{\parallel}

DefClass: expanding reduced-index mode APara1p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$\mathcal{A}^{\parallel}_{ab}$

$$\begin{aligned} & \frac{1}{4} C^{c}_{ab} n_c - \frac{1}{4} C^{c}_{a b} n_c - \frac{1}{4} C^{c}_{ba} n_c + \frac{1}{4} C^{c}_{b a} n_c - \\ & \frac{1}{4} C^{cd}_{b} n_a n_c n_d + \frac{1}{4} C^{cd}_{b} n_a n_c n_d + \frac{1}{4} C^{cd}_{a} n_b n_c n_d - \frac{1}{4} C^{cd}_{a} n_b n_c n_d \end{aligned}$$

$\mathcal{A}^{\parallel}_{ab}$

DefClass: expanding reduced-index mode APerp1p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{A}^{\perp}_{ab}

$$\frac{1}{2} C^c_{ab} n_c - \frac{1}{2} C^c_{ba} n_c + \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_a n_b n_c n_d + \frac{1}{2} C^{cd}_a n_b n_c n_d$$

\mathcal{A}^\perp_{ab}

**** DefClass:** expanding reduced-index mode QPara1p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{Q}^\perp_{ab}

$$-\frac{1}{2} C^{bc}_{ab} n_c - \frac{1}{2} C^{bc}_{ba} n_c + \frac{1}{2} C^{cd}_b n_a n_c n_d + \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d - \frac{1}{2} C^{cd}_b n_a n_c n_d$$

$\mathcal{Q}^\perp_{ab} + 2 \mathcal{Q}^{th}_b n_a - 2 \mathcal{Q}^{th}_a n_b$

**** DefClass:** expanding reduced-index mode APara1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{A}^\parallel_a

$$-\frac{1}{2} C^{bc}_{ab} + \frac{1}{2} C^{bc}_{ba} - \frac{1}{2} C^{bc}_b n_a n_c + \frac{1}{2} C^{bc}_b n_a n_c + \frac{1}{2} C^{bc}_a n_b n_c - \frac{1}{2} C^{bc}_a n_b n_c$$

\mathcal{A}^\parallel_a

**** DefClass:** expanding reduced-index mode APerp1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{A}^\perp_a

$$\frac{1}{2} C^{bc}_a n_b n_c - \frac{1}{2} C^{bc}_a n_b n_c$$

\mathcal{A}^\perp_a

**** DefClass:** expanding reduced-index mode QPerp1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{Q}^{it}_a

$$C^{bc}_a n_b n_c + C^{bc}_a n_b n_c + C^{bc}_a n_b n_c - 3 C^{bcd}_a n_a n_b n_c n_d$$

\mathcal{Q}^{it}_a

**** DefClass:** expanding reduced-index mode QPara1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{Q}^{it}_a

$$C^{bc}_a + C^{bc}_{ab} + C^{bc}_{ba} - C^{bc}_c n_a n_b - C^{bc}_b n_a n_c - C^{bc}_b n_a n_c - C^{bc}_a n_b n_c - C^{bc}_a n_b n_c - C^{bc}_a n_b n_c + 3 C^{bcd}_a n_a n_b n_c n_d$$

$$2 \cdot \mathcal{Q}_{a \ b}^{\parallel \ b} + 2 \cdot \mathcal{Q}_{b \ a}^{\parallel \ b} + 3 \cdot \mathcal{Q}_{a \ b}^{\parallel \ b} + 1 \cdot \mathcal{Q}_{a \ b}^{\parallel \ t}$$

**** DefClass:** expanding reduced-index mode QPerpH1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$1 \cdot \mathcal{Q}_a^{ih}$$

$$C_a^{bc} n_b n_c - \frac{1}{2} C_a^{bc} n_b n_c - \frac{1}{2} C_a^{bc} n_b n_c$$

$$1 \cdot \mathcal{Q}_a^{ih}$$

**** DefClass:** expanding reduced-index mode QParaH1m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$1 \cdot \mathcal{Q}_a^{lh}$$

$$C_a^{bc} - \frac{1}{2} C_{ab}^b - \frac{1}{2} C_{ba}^b - C^{bc}{}_c n_a n_b + \frac{1}{2} C_b^{bc} n_a n_c + \frac{1}{2} C^{bc}{}_b n_a n_c - C_a^{bc} n_b n_c + \frac{1}{2} C_a^{bc} n_b n_c + \frac{1}{2} C^{bc}{}_a n_b n_c - 2 \cdot \mathcal{Q}_{a \ b}^{\parallel \ b} + 2 \cdot \mathcal{Q}_{b \ a}^{\parallel \ b} + 1 \cdot \mathcal{Q}_a^{lh}$$

**** DefClass:** expanding reduced-index mode APara2p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$2 \cdot \mathcal{A}_{ab}^{\parallel}$$

$$-\frac{1}{4} C_{ab}^c n_c + \frac{1}{4} C_a^c{}_b n_c - \frac{1}{4} C_{ba}^c n_c + \frac{1}{4} C_b^c{}_a n_c + \frac{1}{6} C^{cd}{}_c \eta_{ab} n_d - \frac{1}{6} C^{cd}{}_c \eta_{ab} n_d - \frac{1}{6} C^{cd}{}_c n_a n_b n_d + \frac{1}{6} C^{cd}{}_c n_a n_b n_d + \frac{1}{4} C^{cd}{}_b n_a n_c n_d - \frac{1}{4} C^{cd}{}_b n_a n_c n_d + \frac{1}{4} C^{cd}{}_a n_b n_c n_d - \frac{1}{4} C^{cd}{}_a n_b n_c n_d$$

$$2 \cdot \mathcal{A}_{ab}^{\parallel}$$

**** DefClass:** expanding reduced-index mode QPara2p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$$2 \cdot \mathcal{Q}_{ab}^{\parallel}$$

$$\frac{1}{2} C_{ab}^c n_c + \frac{1}{2} C_a^c{}_b n_c + \frac{1}{2} C_{ba}^c n_c + \frac{1}{2} C_b^c{}_a n_c + \frac{1}{2} C^{cd}{}_c n_c + \frac{1}{2} C^{cd}{}_c n_c - \frac{1}{3} C^{cd}{}_d \eta_{ab} n_c + \frac{1}{3} C^{cd}{}_d n_a n_b n_c - \frac{1}{3} C^{cd}{}_c \eta_{ab} n_d - \frac{1}{3} C^{cd}{}_c \eta_{ab} n_d + \frac{1}{3} C^{cd}{}_c n_a n_b n_d + \frac{1}{3} C^{cd}{}_c n_a n_b n_d - C_b^{cd} n_a n_c n_d - C_b^{cd} n_a n_c n_d - C_b^{cd} n_a n_c n_d - C_a^{cd} n_b n_c n_d - C_a^{cd} n_b n_c n_d + C^{cde} \eta_{ab} n_c n_d n_e + 2 C^{cde} n_a n_b n_c n_d n_e - 2 \cdot \mathcal{Q}_{ab}^{\parallel} - \frac{1}{3} \eta_{ab} 2 \cdot \mathcal{Q}_c^c + \frac{1}{3} 2 \cdot \mathcal{Q}_c^c n_a n_b$$

**** DefClass:** expanding reduced-index mode QPerp2p into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{Q}_{ab}^\perp

$$\begin{aligned}
& -\frac{1}{4} C_{ab}^c n_c - \frac{1}{4} C_a^c{}_b n_c - \frac{1}{4} C_{ba}^c n_c - \frac{1}{4} C_b^c{}_a n_c + \frac{1}{2} C^c{}_{ab} n_c + \frac{1}{2} C^c{}_{ba} n_c - \\
& \frac{1}{3} C^c{}_d \eta_{ab} n_c + \frac{1}{3} C^c{}_d n_a n_b n_c + \frac{1}{6} C^c{}_c{}^d \eta_{ab} n_d + \frac{1}{6} C^c{}_c{}^d \eta_{ab} n_d - \\
& \frac{1}{6} C^c{}_c{}^d n_a n_b n_d - \frac{1}{6} C^c{}_c{}^d n_a n_b n_d + \frac{1}{2} C_b^c{}^d n_a n_c n_d - \frac{1}{4} C_b^c{}^d n_a n_c n_d - \\
& \frac{1}{4} C^c{}_b{}^d n_a n_c n_d + \frac{1}{2} C_a^c{}^d n_b n_c n_d - \frac{1}{4} C_a^c{}^d n_b n_c n_d - \frac{1}{4} C^c{}_a{}^d n_b n_c n_d \\
& \mathcal{Q}_{ab}^\perp - \frac{1}{3} \eta_{ab} \mathcal{Q}^\perp{}_c{}^c + \frac{1}{3} \mathcal{Q}^\perp{}_c{}^c n_a n_b
\end{aligned}$$

**** DefClass:** expanding reduced-index mode APara2m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$\mathcal{A}_{abc}^\parallel$

$$\begin{aligned}
& -\frac{1}{8} C_{abc} + \frac{1}{8} C_{acb} + \frac{1}{8} C_{bac} - \frac{1}{8} C_{bca} + \frac{1}{4} C_{cab} - \frac{1}{4} C_{cba} + \frac{3}{16} C^d{}_{bd} \eta_{ac} - \frac{3}{16} C^d{}_{db} \eta_{ac} - \\
& \frac{3}{16} C^d{}_{ad} \eta_{bc} + \frac{3}{16} C^d{}_{da} \eta_{bc} - \frac{3}{16} C^d{}_{bd} n_a n_c + \frac{3}{16} C^d{}_{db} n_a n_c + \frac{3}{16} C^d{}_{ad} n_b n_c - \\
& \frac{3}{16} C^d{}_{da} n_b n_c + \frac{1}{8} C_b^d{}^c n_a n_d - \frac{1}{8} C_b^d{}^c n_a n_d + \frac{1}{4} C_{cb}^d n_a n_d - \frac{1}{4} C_{cb}^d n_a n_d + \\
& \frac{1}{8} C^d{}_{bc} n_a n_d - \frac{1}{8} C^d{}_{cb} n_a n_d - \frac{1}{8} C_{ac}^d n_b n_d + \frac{1}{8} C_{ac}^d n_b n_d - \frac{1}{4} C_{ca}^d n_b n_d + \\
& \frac{1}{4} C_{ca}^d n_b n_d - \frac{1}{8} C^d{}_{ac} n_b n_d + \frac{1}{8} C^d{}_{ca} n_b n_d + \frac{1}{8} C_{ab}^d n_c n_d - \frac{1}{8} C_{ab}^d n_c n_d - \\
& \frac{1}{8} C_{ba}^d n_c n_d + \frac{1}{8} C_{ba}^d n_c n_d - \frac{1}{4} C^d{}_{ab} n_c n_d + \frac{1}{4} C^d{}_{ba} n_c n_d - \frac{3}{16} C^d{}_{de} \eta_{bc} n_a n_e + \\
& \frac{3}{16} C^d{}_{de} \eta_{bc} n_a n_e + \frac{3}{16} C^d{}_{de} \eta_{ac} n_b n_e - \frac{3}{16} C^d{}_{de} \eta_{ac} n_b n_e - \frac{3}{16} C^d{}_{be} \eta_{ac} n_d n_e + \\
& \frac{3}{16} C^d{}_{be} \eta_{ac} n_d n_e + \frac{3}{16} C^d{}_{ae} \eta_{bc} n_d n_e - \frac{3}{16} C^d{}_{ae} \eta_{bc} n_d n_e - \frac{3}{16} C^d{}_{be} n_a n_c n_d n_e + \\
& \frac{3}{16} C^d{}_{be} n_a n_c n_d n_e + \frac{3}{16} C^d{}_{ae} n_b n_c n_d n_e - \frac{3}{16} C^d{}_{ae} n_b n_c n_d n_e \\
& \frac{2}{3} \mathcal{A}_{abc}^\parallel + \frac{1}{3} \mathcal{A}_{acb}^\parallel - \frac{1}{3} \mathcal{A}_{bca}^\parallel
\end{aligned}$$

**** DefClass:** expanding reduced-index mode QPara2m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

$\mathcal{Q}_{abc}^\parallel$

$$\begin{aligned}
& -\frac{1}{6} C_{abc} - \frac{1}{6} C_{acb} - \frac{1}{6} C_{bac} - \frac{1}{6} C_{bca} + \frac{1}{3} C_{cab} + \frac{1}{3} C_{cba} - \frac{1}{3} C_c^d \eta_{ab} + \frac{1}{6} C_{cd}^d \eta_{ab} + \frac{1}{6} C_{dc}^d \eta_{ab} + \\
& \frac{1}{6} C_{bd}^d \eta_{ac} - \frac{1}{12} C_{bd}^d \eta_{ac} - \frac{1}{12} C_{db}^d \eta_{ac} + \frac{1}{6} C_a^d \eta_{bc} - \frac{1}{12} C_{ad}^d \eta_{bc} - \frac{1}{12} C_{da}^d \eta_{bc} + \\
& \frac{1}{3} C_c^d n_a n_b - \frac{1}{6} C_{cd}^d n_a n_b - \frac{1}{6} C_{dc}^d n_a n_b - \frac{1}{6} C_{bd}^d n_a n_c + \frac{1}{12} C_{bd}^d n_a n_c + \\
& \frac{1}{12} C_{db}^d n_a n_c - \frac{1}{6} C_a^d n_b n_c + \frac{1}{12} C_{ad}^d n_b n_c + \frac{1}{12} C_{da}^d n_b n_c + \frac{1}{6} C_{bc}^d n_a n_d + \\
& \frac{1}{6} C_{bc}^d n_a n_d - \frac{1}{3} C_{cb}^d n_a n_d - \frac{1}{3} C_{cb}^d n_a n_d + \frac{1}{6} C_{bc}^d n_a n_d + \frac{1}{6} C_{cb}^d n_a n_d - \\
& \frac{1}{6} C_{de}^d \eta_{bc} n_a n_d + \frac{1}{6} C_{ac}^d n_b n_d + \frac{1}{6} C_a^d n_b n_d - \frac{1}{3} C_{ca}^d n_b n_d - \frac{1}{3} C_{ca}^d n_b n_d + \\
& \frac{1}{6} C_{ac}^d n_b n_d + \frac{1}{6} C_{ca}^d n_b n_d - \frac{1}{6} C_{de}^d \eta_{ac} n_b n_d + \frac{1}{6} C_{ab}^d n_c n_d + \frac{1}{6} C_a^d n_c n_d + \\
& \frac{1}{6} C_{ba}^d n_c n_d + \frac{1}{6} C_{ba}^d n_c n_d - \frac{1}{3} C_{ab}^d n_c n_d - \frac{1}{3} C_{ba}^d n_c n_d + \frac{1}{3} C_{de}^d \eta_{ab} n_c n_d + \\
& \frac{1}{12} C_{de}^d \eta_{bc} n_a n_e + \frac{1}{12} C_{de}^d \eta_{bc} n_a n_e + \frac{1}{12} C_{de}^d \eta_{ac} n_b n_e + \frac{1}{12} C_{de}^d \eta_{ac} n_b n_e - \\
& \frac{1}{6} C_{de}^d \eta_{ab} n_c n_e - \frac{1}{6} C_{de}^d \eta_{ab} n_c n_e + \frac{1}{3} C_{de}^d \eta_{ab} n_d n_e - \frac{1}{6} C_{de}^d \eta_{ab} n_d n_e - \\
& \frac{1}{6} C_{de}^d \eta_{ab} n_d n_e - \frac{1}{6} C_{de}^d \eta_{ac} n_d n_e + \frac{1}{12} C_{de}^d \eta_{ac} n_d n_e + \frac{1}{12} C_{de}^d \eta_{ac} n_d n_e - \\
& \frac{1}{6} C_a^d \eta_{bc} n_d n_e + \frac{1}{12} C_a^d \eta_{bc} n_d n_e + \frac{1}{12} C_a^d \eta_{bc} n_d n_e + \frac{1}{3} C_c^d n_a n_b n_d n_e - \\
& \frac{1}{6} C_{de}^d n_a n_b n_d n_e - \frac{1}{6} C_{de}^d n_a n_b n_d n_e - \frac{1}{6} C_{de}^d n_a n_c n_d n_e + \frac{1}{12} C_{de}^d n_a n_c n_d n_e + \\
& \frac{1}{12} C_{de}^d n_a n_c n_d n_e - \frac{1}{6} C_a^d n_b n_c n_d n_e + \frac{1}{12} C_a^d n_b n_c n_d n_e + \frac{1}{12} C_{de}^d n_b n_c n_d n_e
\end{aligned}$$

**** DefClass:** expanding reduced-index mode QPara3m into fundamental field and decomposing fundamental field back into reduced-index modes (should return original).

\mathcal{Q}_{abc}^I

$$\begin{aligned}
& \frac{1}{6} C_{abc} + \frac{1}{6} C_{acb} + \frac{1}{6} C_{bac} + \frac{1}{6} C_{bca} + \frac{1}{6} C_{cab} + \frac{1}{6} C_{cba} - \frac{1}{15} C_c^d \eta_{ab} - \frac{1}{15} C_c^d \eta_{ab} - \\
& \frac{1}{15} C_{dc}^d \eta_{ab} - \frac{1}{15} C_{bd}^d \eta_{ac} - \frac{1}{15} C_{bd}^d \eta_{ac} - \frac{1}{15} C_{db}^d \eta_{ac} - \frac{1}{15} C_{ad}^d \eta_{bc} - \frac{1}{15} C_{ad}^d \eta_{bc} - \\
& \frac{1}{15} C_{da}^d \eta_{bc} + \frac{1}{15} C_c^d n_a n_b + \frac{1}{15} C_{cd}^d n_a n_b + \frac{1}{15} C_{dc}^d n_a n_b + \frac{1}{15} C_{bd}^d n_a n_c + \\
& \frac{1}{15} C_{bd}^d n_a n_c + \frac{1}{15} C_{db}^d n_a n_c + \frac{1}{15} C_{ad}^d n_b n_c + \frac{1}{15} C_{ad}^d n_b n_c + \frac{1}{15} C_{da}^d n_b n_c - \\
& \frac{1}{6} C_{bc}^d n_a n_d - \frac{1}{6} C_{bc}^d n_a n_d - \frac{1}{6} C_{cb}^d n_a n_d - \frac{1}{6} C_{cb}^d n_a n_d - \frac{1}{6} C_{bc}^d n_a n_d - \\
& \frac{1}{6} C_{cb}^d n_a n_d + \frac{1}{15} C^{de} \eta_{bc} n_a n_d - \frac{1}{6} C_{ac}^d n_b n_d - \frac{1}{6} C_{ac}^d n_b n_d - \frac{1}{6} C_{ca}^d n_b n_d - \\
& \frac{1}{6} C_{ca}^d n_b n_d - \frac{1}{6} C_{ac}^d n_b n_d - \frac{1}{6} C_{ca}^d n_b n_d + \frac{1}{15} C^{de} \eta_{ac} n_b n_d - \frac{1}{6} C_{ab}^d n_c n_d - \\
& \frac{1}{6} C_{ab}^d n_c n_d - \frac{1}{6} C_{ba}^d n_c n_d - \frac{1}{6} C_{ba}^d n_c n_d - \frac{1}{6} C_{ab}^d n_c n_d - \frac{1}{6} C_{ba}^d n_c n_d + \\
& \frac{1}{15} C^{de} \eta_{ab} n_c n_d - \frac{1}{5} C^{de} n_a n_b n_c n_d + \frac{1}{15} C_d^e \eta_{bc} n_a n_e + \frac{1}{15} C^{de} \eta_{bc} n_a n_e + \\
& \frac{1}{15} C_d^e \eta_{ac} n_b n_e + \frac{1}{15} C^{de} \eta_{ac} n_b n_e + \frac{1}{15} C_d^e \eta_{ab} n_c n_e + \frac{1}{15} C^{de} \eta_{ab} n_c n_e - \\
& \frac{1}{5} C_d^e n_a n_b n_c n_e - \frac{1}{5} C^{de} n_a n_b n_c n_e + \frac{1}{15} C_c^{de} \eta_{ab} n_d n_e + \frac{1}{15} C_c^{de} \eta_{ab} n_d n_e + \\
& \frac{1}{15} C^{de} \eta_{ab} n_d n_e + \frac{1}{15} C_b^{de} \eta_{ac} n_d n_e + \frac{1}{15} C_b^{de} \eta_{ac} n_d n_e + \frac{1}{15} C^{de} \eta_{ac} n_d n_e + \\
& \frac{1}{15} C_a^{de} \eta_{bc} n_d n_e + \frac{1}{15} C_a^{de} \eta_{bc} n_d n_e + \frac{1}{15} C^{de} \eta_{bc} n_d n_e + \frac{4}{15} C_c^{de} n_a n_b n_d n_e + \\
& \frac{4}{15} C_c^{de} n_a n_b n_d n_e + \frac{4}{15} C^{de} n_a n_b n_d n_e + \frac{4}{15} C_b^{de} n_a n_c n_d n_e + \\
& \frac{4}{15} C_b^{de} n_a n_c n_d n_e + \frac{4}{15} C_a^{de} n_b n_c n_d n_e + \frac{4}{15} C_a^{de} n_b n_c n_d n_e - \frac{1}{5} C^{def} \eta_{bc} n_a n_d n_e n_f - \\
& \frac{1}{5} C^{def} \eta_{ac} n_b n_d n_e n_f - \frac{1}{5} C^{def} \eta_{ab} n_c n_d n_e n_f - \frac{2}{5} C^{def} n_a n_b n_c n_d n_e n_f \\
& \frac{1}{3} \overset{2}{\cdot} Q_{abc}^{\parallel} + \frac{1}{3} \overset{2}{\cdot} Q_{acb}^{\parallel} - \frac{2}{15} \eta_{bc} \overset{2}{\cdot} Q_{ad}^{\parallel} + \frac{1}{3} \overset{2}{\cdot} Q_{bca}^{\parallel} - \frac{2}{15} \eta_{ac} \overset{2}{\cdot} Q_{bd}^{\parallel} - \frac{2}{15} \eta_{ab} \overset{2}{\cdot} Q_{cd}^{\parallel} - \\
& \frac{1}{15} \eta_{bc} \overset{2}{\cdot} Q_{da}^{\parallel} - \frac{1}{15} \eta_{ac} \overset{2}{\cdot} Q_{db}^{\parallel} - \frac{1}{15} \eta_{ab} \overset{2}{\cdot} Q_{dc}^{\parallel} + \overset{3}{\cdot} Q_{abc}^{\parallel} - \frac{1}{5} \eta_{bc} \overset{3}{\cdot} Q_{ad}^{\parallel} - \frac{1}{5} \eta_{ac} \overset{3}{\cdot} Q_{bd}^{\parallel} - \\
& \frac{1}{5} \eta_{ab} \overset{3}{\cdot} Q_{cd}^{\parallel} + \frac{2}{15} \overset{2}{\cdot} Q_{cd}^{\parallel} n_a n_b + \frac{1}{15} \overset{2}{\cdot} Q_{dc}^{\parallel} n_a n_b + \frac{1}{5} \overset{3}{\cdot} Q_{cd}^{\parallel} n_a n_b + \frac{2}{15} \overset{2}{\cdot} Q_{bd}^{\parallel} n_a n_c + \\
& \frac{1}{15} \overset{2}{\cdot} Q_{db}^{\parallel} n_a n_c + \frac{1}{5} \overset{3}{\cdot} Q_{bd}^{\parallel} n_a n_c + \frac{2}{15} \overset{2}{\cdot} Q_{ad}^{\parallel} n_b n_c + \frac{1}{15} \overset{2}{\cdot} Q_{da}^{\parallel} n_b n_c + \frac{1}{5} \overset{3}{\cdot} Q_{ad}^{\parallel} n_b n_c
\end{aligned}$$

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenEven\$89708 will now be printed.

$$\begin{aligned} & \langle | \text{Even} \rightarrow \{ \{1, 1, 1, 1, 1, 1, 0\}, \{1, 1, 1, 1, 1, 1, 0\}, \{1, 1, 1, 1, 1, 1, 0\}, \\ & \quad \{1, 1, 1, 1, 1, 1, 0\}, \{1, 1, 1, 1, 1, 1, 0\}, \{1, 1, 1, 1, 1, 1, 0\}, \{0, 0, 0, 0, 0, 0, 0\} \rangle, \\ & \text{Odd} \rightarrow \{ \{0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0\}, \\ & \quad \{0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 1\} \rangle \end{aligned}$$

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** xAct\PSALTER\Private\Diagnostic: the value of the
variable xAct\PSALTER\Private\EvenEven$89708 will now be printed.
```

$$\begin{aligned} & \left\{ \{ \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}} \}, \right. \\ & \left\{ \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{A}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}} \}, \right. \\ & \left. \left\{ \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{Q}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{A}}^{\text{ab}} \overset{\circ}{\mathcal{Q}}^\dagger_{\text{ab}}, \overset{\circ}{\mathcal{Q}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{Q}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{Q}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}}, \overset{\circ}{\mathcal{Q}}^\dagger \overset{\circ}{\mathcal{A}}^{\text{ab}} \right\} \right\} \end{aligned}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\EvenOdd$89708 will now be printed.
```

[illegible]

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\OddEven$89708 will now be printed.
```

$$\begin{aligned} & \left\{ \{ \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{H}}^{\dagger a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{H}}^{\dagger a}, \epsilon \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{H}}^{\dagger a}, \overset{\cdot}{\mathcal{Q}}^{bc} \}, \right. \\ & \left\{ \overset{\cdot}{\mathcal{A}}^{\dagger a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{A}}^{\dagger a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{A}}^{\dagger a} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc} \}, \right. \\ & \left\{ \overset{\cdot}{\mathcal{A}}^{bc}, \overset{\cdot}{\mathcal{A}}^{\dagger a} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{A}}^{\dagger a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{A}}^{\dagger a} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc} \}, \right. \\ & \left\{ \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a}, \epsilon \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a} \}, \right. \\ & \left\{ \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a}, \epsilon \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc}, \overset{\cdot}{\mathcal{Q}}^{\dagger t a} \}, \right. \\ & \left\{ \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a}, \epsilon \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a} \}, \right. \\ & \left. \left\{ \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a}, \overset{\cdot}{\mathcal{A}}^{bc} \in \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a}, \epsilon \mathbb{I}_{abc}, \overset{\cdot}{\mathcal{Q}}^{bc}, \overset{\cdot}{\mathcal{Q}}^{\dagger h a} \right\} \right\} \end{aligned}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\Odd0dd$89708 will now be printed.
```


[illegible]

```
** xAct\PSALter\Private\Diagnostic: the value of the variable
```

xAct\PSALter\Private\InvariantMatrixValue\$89708[xAct\PSALter\Private\Spin]
will now be printed.

[illegible]

```
** xAct\PSALter\Private\Diagnostic: the value of the variable
```

xAct`PSALter`Private`MaskMatrixValue\$89708[xAct`PSALter`Private`Spin]
will now be printed.

[illegible]

```
** xAct\PSALTER\Private\Diagnostic: the value of the variable
xAct\PSALTER\Private\AntiMaskMatrixValue$89708[xAct\PSALTER\Private\Spin]
will now be printed.
```

$$\begin{aligned} & \langle | \text{Even} \rightarrow \{ \{1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \\ & \quad \{1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \\ & \quad \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \\ & \quad \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\} \rangle, \\ & \text{Odd} \rightarrow \{ \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \\ & \quad \{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \\ & \quad \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \\ & \quad \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\}, \{0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1\} \} \rangle \end{aligned}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\EvenEven$89708 will now be printed.
```

$$\begin{aligned} & \left\{ \left\{ \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp} \uparrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp} \uparrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp} \uparrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab} \right\}, \right. \\ & \left\{ \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp} \uparrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp} \uparrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp} \uparrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab} \right\}, \\ & \left\{ \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab} \right\}, \\ & \left. \left\{ \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} h^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} \mathcal{A}^{\perp ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab}, \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow^{ab} \begin{smallmatrix} 2^+ \\ 2^+ \end{smallmatrix} Q^{\perp} \downarrow_{ab} \right\} \right\} \end{aligned}$$

```
** xAct\PSALTER\Private\Diagnostic: the value of the
variable xAct\PSALTER\Private\EvenOdd$89708 will now be printed.
```

$$\left\{ \begin{array}{l} \mathcal{A}^{abc} \in \mathbb{I}_{bcd} \mathcal{H}^d_{+}, \mathcal{A}^{ab} \in \mathbb{I}_{bcd} \mathcal{H}^d_{+} \mathcal{Q}^{cd}_a \end{array} \right\}, \left\{ \begin{array}{l} \mathcal{A}^{abc} \in \mathbb{I}_{abc} \mathcal{H}^d_{+}, \mathcal{A}^{ab} \in \mathbb{I}_{bcd} \mathcal{Q}^{cd}_a \end{array} \right\},$$

$$\left\{ \begin{array}{l} \mathcal{A}^{abc} \in \mathbb{I}_{bcd} \mathcal{Q}^d_{+}, \mathcal{Q}^{abc} \in \mathbb{I}_{bcd} \mathcal{Q}^d_{+} \end{array} \right\}, \left\{ \begin{array}{l} \mathcal{A}^{abc} \in \mathbb{I}_{bcd} \mathcal{Q}^d_{+}, \mathcal{Q}^{ab} \in \mathbb{I}_{bcd} \mathcal{Q}^d_{+} \end{array} \right\}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\OddEven$89708 will now be printed.
```

$$\left\{ \begin{array}{l} \left\{ \begin{array}{l} \mathcal{A}^{\parallel} \dagger^{abc} \in^{\parallel}_{bcd} \mathcal{H}^{\perp}_a{}^d, \mathcal{A}^{\perp}_c \dagger^{abc} \in^{\parallel}_{abd} \mathcal{A}^{\parallel} \dagger^{abc} \in^{\parallel}_{bcd} \mathcal{Q}^{\perp}_a{}^d, \mathcal{A}^{\perp}_c \dagger^{abc} \in^{\parallel}_{bcd} \mathcal{Q}^{\perp}_a{}^d \end{array} \right\}, \\ \left\{ \begin{array}{l} \in^{\parallel}_{bcd} \mathcal{H}^{\perp}_{ab} \mathcal{Q}^{\perp}_a \dagger^{cd}, \mathcal{A}^{\parallel}_{ab} \in^{\parallel}_{bcd} \mathcal{Q}^{\perp}_a \dagger^{cd}, \in^{\parallel}_{bcd} \mathcal{Q}^{\perp}_a \dagger^{abc} \mathcal{Q}^{\perp}_a{}^d, \in^{\parallel}_{bcd} \mathcal{Q}^{\perp}_a \dagger^{abc} \mathcal{Q}^{\perp}_a{}^d \end{array} \right\} \end{array} \right\}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\Odd0dd$89708 will now be printed.
```

$$\left\{ \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{A}^{\text{abc}} \right\}, \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{A}^{\parallel} \right\}_{\text{abc}}, \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{A}^{\parallel} \right\}^{\text{abc}} \right\}, \left\{ \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{A}^{\text{abc}} \right\}, \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{Q}^{\parallel} \right\}_{\text{acb}}, \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{Q}^{\parallel} \right\}^{\text{abc}} \right\}, \left\{ \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{Q}^{\parallel} \right\}_{\text{acb}}, \left\{ \begin{smallmatrix} \mathbb{2}^- \\ \mathbb{2}^- \end{smallmatrix} \mathcal{Q}^{\parallel} \right\}^{\text{abc}} \right\} \right\}$$

```
** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`InvariantMatrixValue$89708[xAct`PSALter`Private`Spin]
will now be printed.
```

$$\begin{pmatrix}
\begin{matrix} \mathcal{H}^{ab} & \mathcal{H}^\dagger_{ab} & \mathcal{A}^{ab} & \mathcal{H}^\dagger_{ab} & \mathcal{H}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{H}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{abc} \end{matrix} \\
\begin{matrix} \mathcal{A}^\dagger_{ab} & \mathcal{H}^\dagger_{ab} & \mathcal{A}^{ab} & \mathcal{A}^\dagger_{ab} & \mathcal{A}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{abc} \end{matrix} \\
\begin{matrix} \mathcal{H}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{abc} \end{matrix} \\
\begin{matrix} \mathcal{H}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{Q}^\dagger_{ab} & \mathcal{A}^{abc} \end{matrix} \\
\begin{matrix} \mathcal{A}^\dagger_{abc} & \epsilon^{bcd} & \mathcal{H}^\dagger_a{}^d & \mathcal{A}^\dagger_{abc} & \mathcal{A}^\dagger_c{}^d & \epsilon^{abd} & \mathcal{A}^\dagger_{abc} & \epsilon^{bcd} & \mathcal{Q}^\dagger_a{}^d & \mathcal{A}^\dagger_{abc} \\
\epsilon^{bcd} & \mathcal{H}^{ab} & \mathcal{Q}^\dagger_a{}^{cd} & \mathcal{A}^{ab} & \epsilon^{bcd} & \mathcal{Q}^\dagger_a{}^{cd} & \epsilon^{bcd} & \mathcal{Q}^\dagger_a{}^{bc} & \mathcal{Q}^\dagger_a{}^d & \epsilon^{bcd} & \mathcal{Q}^\dagger_a{}^{bc} & \mathcal{Q}^\dagger_a{}^d & \mathcal{A}^{abc} \end{matrix}
\end{pmatrix}$$

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`MaskMatrixValue\$89708[xAct`PSALter`Private`Spin]
will now be printed.

$$\begin{pmatrix}
1 & 1 & 1 & 1 & 0 & 0 \\
1 & 1 & 1 & 1 & 0 & 0 \\
1 & 1 & 1 & 1 & 0 & 0 \\
1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 1 & 1
\end{pmatrix}$$

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`AntiMaskMatrixValue\$89708[xAct`PSALter`Private`Spin]
will now be printed.

<|Even → {{1, 1, 1, 1, 0, 0}, {1, 1, 1, 1, 0, 0},
{1, 1, 1, 1, 0, 0}, {1, 1, 1, 1, 0, 0}, {0, 0, 0, 0, 0, 0}, {0, 0, 0, 0, 0, 0}},
Odd → {{0, 0, 0, 0, 0, 0}, {0, 0, 0, 0, 0, 0}, {0, 0, 0, 0, 0, 0},
{0, 0, 0, 0, 0, 0}, {0, 0, 0, 0, 1, 1}, {0, 0, 0, 0, 1, 1}}>

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenEven\$89708 will now be printed.

{}

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`EvenOdd\$89708 will now be printed.

{}

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`OddEven\$89708 will now be printed.

{}

** xAct`PSALter`Private`Diagnostic: the value of the
variable xAct`PSALter`Private`OddOdd\$89708 will now be printed.

$$\left\{ \left\{ \mathcal{Q}^{abc} \mathcal{Q}^\dagger_{abc} \right\} \right\}$$

** xAct`PSALter`Private`Diagnostic: the value of the variable
xAct`PSALter`Private`InvariantMatrixValue\$89708[xAct`PSALter`Private`Spin]
will now be printed.

$$\left(\left(\begin{array}{cc} \textcolor{blue}{3}^- Q^{\parallel abc} & \textcolor{blue}{3}^- Q^{\parallel} t_{abc} \end{array} \right) \right)$$

```
** xAct\PSALter\Private\Diagnostic: the value of the variable
xAct\PSALter\Private\MaskMatrixValue$89708[xAct\PSALter\Private\Spin]
will now be printed.
```

(1)

```
** xAct\PSALter\Private\Diagnostic: the value of the variable
xAct\PSALter\Private\AntiMaskMatrixValue$89708[xAct\PSALter\Private\Spin]
will now be printed.
```

$$\langle | \text{Even} \rightarrow \{0\}, \text{Odd} \rightarrow \{1\} | \rangle$$

```
** xAct\PSALter\Private\Diagnostic: the value of
the variable xAct\PSALter\Private\Expr$95538 will now be printed.
```

$$\begin{aligned} & \frac{1}{2!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{0!}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \dagger_a + \frac{1}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \dagger_{ab} + \frac{2}{2!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{2}{2!} \mathcal{A}^\dagger \dagger_{abc} + \frac{2}{2!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \\ & \frac{1}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \dagger_a + \frac{1}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \dagger_{ab} + \frac{0!}{2!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{2}{2!} \mathcal{A}^\dagger \dagger_{ab} + \frac{0!}{2!} \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{A}^\dagger \dagger_a + \frac{0!}{1!} \mathcal{A}^\dagger \mathcal{A}^\dagger + \\ & \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \dagger_{ab} + \frac{2}{2!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{2}{2!} \mathcal{Q}^\dagger \dagger_{abc} + \frac{2}{2!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{2}{2!} \mathcal{Q}^\dagger \dagger_{ab} + \frac{3}{3!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{3}{3!} \mathcal{Q}^\dagger \dagger_{abc} + \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \\ & \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \dagger_a + \frac{2}{2!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{2}{2!} \mathcal{Q}^\dagger \dagger_{ab} + \frac{0!}{2!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \dagger_a + \frac{0!}{2!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger + \frac{1}{1!} \mathcal{Q}^\dagger \mathcal{A}^\dagger \mathcal{A}^\dagger \end{aligned}$$

```
** xAct\PSALter\Private\Diagnostic: the value of the
variable xAct\PSALter\Private\OriginalTerms$95538 will now be printed.
```

$$\{h^{ab} \quad h\tau_{ab}, \quad C^{abc} \quad C\tau_{abc}\}$$

```
** xAct\PSALter\Private\Diagnostic: the value of
the variable xAct\PSALter\Private\Expr$95538 will now be printed.
```

$$\begin{aligned} & \overset{\cdot}{\mathcal A}\overset{\cdot}{\mathcal A}^\dagger + \overset{\cdot}{\mathcal A}\overset{\cdot}{\mathcal A}^\dagger + \overset{\cdot}{\mathcal A}^{\text{a}} \overset{\cdot}{\mathcal A}^\dagger + \overset{\cdot}{\mathcal A}^\dagger_{\text{a}} + \overset{\cdot}{\mathcal A}^{\text{ab}} \overset{\cdot}{\mathcal A}^\dagger + \overset{\cdot}{\mathcal A}^\dagger_{\text{ab}} + \overset{\cdot}{\mathcal A}^{\text{abc}} \overset{\cdot}{\mathcal A}^\dagger + \overset{\cdot}{\mathcal A}^\dagger_{\text{abc}} + \\ & \overset{\cdot}{\mathcal A}^{\text{ab}} \overset{\cdot}{\mathcal A}^\dagger_{\text{ab}} + \overset{\cdot}{\mathcal A}^{\text{a}} \overset{\cdot}{\mathcal A}^\dagger_{\text{a}} + \overset{\cdot}{\mathcal A}^{\text{ab}} \overset{\cdot}{\mathcal A}^\dagger_{\text{ab}} - C^{\text{abc}} C^\dagger_{\text{abc}} + \overset{\cdot}{h}\overset{\cdot}{h}^\dagger + \\ & \overset{\cdot}{h}^{\text{ab}} \overset{\cdot}{h}^\dagger_{\text{ab}} + \overset{\cdot}{h}^\dagger \overset{\cdot}{h}^\dagger + \overset{\cdot}{h}^{\text{a}} \overset{\cdot}{h}^\dagger_{\text{a}} - h^{\text{ab}} h^\dagger_{\text{ab}} + \overset{\cdot}{Q}\overset{\cdot}{Q}^\dagger + \overset{\cdot}{Q}^{\perp\text{ab}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{ab}} + \\ & \overset{\cdot}{Q}^{\text{abc}} \overset{\cdot}{Q}^\dagger_{\text{abc}} + \overset{\cdot}{Q}^{\text{ab}} \overset{\cdot}{Q}^\dagger_{\text{ab}} + \overset{\cdot}{Q}^{\text{abc}} \overset{\cdot}{Q}^\dagger_{\text{abc}} + \overset{\cdot}{Q}^{\text{lh}^{\text{a}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{l}^{\text{a}}} + \overset{\cdot}{Q}^{\text{lt}^{\text{a}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{t}^{\text{a}}} + \\ & \overset{\cdot}{Q}^{\text{ab}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{ab}} + \overset{\cdot}{Q}^{\text{lh}^{\text{ab}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{h}^{\text{ab}}} + \overset{\cdot}{Q}^{\text{lh}^{\text{a}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{h}^{\text{a}}} + \overset{\cdot}{Q}^{\text{lt}^{\text{ab}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{t}^{\text{ab}}} + \overset{\cdot}{Q}^{\text{lt}^{\text{a}}} \overset{\cdot}{Q}^{\perp\dagger}_{\text{t}^{\text{a}}} \end{aligned}$$

```
** xAct\PSALter\Private\Diagnostic: the value of
the variable xAct\PSALter\Private\Expr$95538 will now be printed.
```

```

APara0mRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger$  + APara0pRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger$  +
  APara1mRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_a$  + APara1pRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{ab}$  +
  APara2mRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{abc}$  + APara2pRescalingSymbol2  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{ab}$  +
  APerp1mRescalingSymbol2  $\mathcal{A}^{\perp} \mathcal{A}^{\perp} \dagger_a$  + APerp1pRescalingSymbol2  $\mathcal{A}^{\perp} \mathcal{A}^{\perp} \dagger_{ab}$  -
   $C^{abc} C \dagger_{abc}$  + LinearMetricPara0pRescalingSymbol2  $h^{\parallel} h^{\parallel} \dagger$  +
  LinearMetricPara2pRescalingSymbol2  $h^{\parallel} h^{\parallel} \dagger_{ab}$  +
  LinearMetricPerp0pRescalingSymbol2  $h^{\perp} h^{\perp} \dagger$  +
  LinearMetricPerp1mRescalingSymbol2  $h^{\perp} h^{\perp} \dagger_a - h^{ab} h \dagger_{ab} +$ 
  QPara0pRescalingSymbol2  $Q^{\parallel} Q^{\parallel} \dagger$  + QPara1pRescalingSymbol2  $Q^{\perp} Q^{\perp} \dagger_{ab} +$ 
  QPara2mRescalingSymbol2  $Q^{\parallel} Q^{\parallel} \dagger_{abc} + QPara2pRescalingSymbol2  $Q^{\parallel} Q^{\parallel} \dagger_{ab} +$ 
  QPara3mRescalingSymbol2  $Q^{\parallel} Q^{\parallel} \dagger_{abc} + QParaH1mRescalingSymbol2  $Q^{||h} Q^{||h} \dagger_a +$ 
  QParaT1mRescalingSymbol2  $Q^{||t} Q^{||t} \dagger_a + QPerp2pRescalingSymbol2  $Q^{\perp} Q^{\perp} \dagger_{ab} +$ 
  QPerpH0pRescalingSymbol2  $Q^{||h} Q^{||h} \dagger + QPerpH1mRescalingSymbol2  $Q^{||h} Q^{||h} \dagger_a +$ 
  QPerpT0pRescalingSymbol2  $Q^{||t} Q^{||t} \dagger + QPerpT1mRescalingSymbol2  $Q^{||t} Q^{||t} \dagger_a$$$$$$ 
```

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr\$95538 will now be printed.

```

APara0mRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger$  + APara0pRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger$  +
  APara1mRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_a$  + APara1pRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{ab} +$ 
  APara2mRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{abc} + APara2pRescalingSymbol  $\mathcal{A}^{\parallel} \mathcal{A}^{\parallel} \dagger_{ab} +$ 
  APerp1mRescalingSymbol  $\mathcal{A}^{\perp} \mathcal{A}^{\perp} \dagger_a + APerp1pRescalingSymbol  $\mathcal{A}^{\perp} \mathcal{A}^{\perp} \dagger_{ab} -$ 
   $C^{abc} C \dagger_{abc} + LinearMetricPara0pRescalingSymbol  $h^{\parallel} h^{\parallel} \dagger$  +
  LinearMetricPara2pRescalingSymbol  $h^{\parallel} h^{\parallel} \dagger_{ab} +$ 
  LinearMetricPerp0pRescalingSymbol  $h^{\perp} h^{\perp} \dagger + LinearMetricPerp1mRescalingSymbol  $h^{\perp} h^{\perp} \dagger_a -$ 
   $h^{ab} h \dagger_{ab} + QPara0pRescalingSymbol  $Q^{\parallel} Q^{\parallel} \dagger + QPara1pRescalingSymbol  $Q^{\perp} Q^{\perp} \dagger_{ab} +$ 
  QPara2mRescalingSymbol  $Q^{\parallel} Q^{\parallel} \dagger_{abc} + QPara2pRescalingSymbol  $Q^{\parallel} Q^{\parallel} \dagger_{ab} +$ 
  QPara3mRescalingSymbol  $Q^{\parallel} Q^{\parallel} \dagger_{abc} + QParaH1mRescalingSymbol  $Q^{||h} Q^{||h} \dagger_a +$ 
  QParaT1mRescalingSymbol  $Q^{||t} Q^{||t} \dagger_a + QPerp2pRescalingSymbol  $Q^{\perp} Q^{\perp} \dagger_{ab} +$ 
  QPerpH0pRescalingSymbol  $Q^{||h} Q^{||h} \dagger + QPerpH1mRescalingSymbol  $Q^{||h} Q^{||h} \dagger_a +$ 
  QPerpT0pRescalingSymbol  $Q^{||t} Q^{||t} \dagger + QPerpT1mRescalingSymbol  $Q^{||t} Q^{||t} \dagger_a$$$$$$$$$$$$ 
```

** xAct`PSALter`Private`Diagnostic: the value of
the variable xAct`PSALter`Private`Expr\$95538 will now be printed.

$$\left(-APara0mRescalingSymbol + \frac{3 APara2mRescalingSymbol}{16} + \right.$$

$$\begin{aligned}
& \left. \frac{1}{6} (-6 + 2 \text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{abc} + \\
& \left(\text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{16} + \right. \\
& \quad \left. \frac{1}{6} (2 \text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{acb} + \\
& \left(-\frac{\text{QPara2mRescalingSymbol}}{3} - \frac{\text{QPara3mRescalingSymbol}}{15} + \text{QParaH1mRescalingSymbol} + \right. \\
& \quad \left. \text{QParaT1mRescalingSymbol} \right) C^{ab}{}_b C \dagger_a{}^c{}_c + \\
& \left(\text{APara0mRescalingSymbol} + \frac{3 \text{APara2mRescalingSymbol}}{32} + \right. \\
& \quad \left. \frac{1}{6} (-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{bac} + \\
& \left(-\text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{32} + \right. \\
& \quad \left. \frac{1}{6} (-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{bca} + \\
& \left(\frac{\text{QPara2mRescalingSymbol}}{6} - \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \right. \\
& \quad \left. \text{QParaT1mRescalingSymbol} \right) C^a{}_a{}^b{}_b C \dagger_b{}^c{}_c + \\
& \left(\frac{\text{QPara2mRescalingSymbol}}{6} - \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \right. \\
& \quad \left. \text{QParaT1mRescalingSymbol} \right) C^{ab}{}_a C \dagger_b{}^c{}_c + \\
& \left(-\text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{32} + \right. \\
& \quad \left. \frac{1}{6} (-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{cab} + \\
& \left(\text{APara0mRescalingSymbol} + \frac{3 \text{APara2mRescalingSymbol}}{32} + \right. \\
& \quad \left. \frac{1}{6} (-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol}) \right) C^{abc} C \dagger_{cba} + \\
& \left(\frac{\text{QPara2mRescalingSymbol}}{6} - \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \right.
\end{aligned}$$

$$\begin{aligned}
& \left. \text{QParaT1mRescalingSymbol} \right) C^{ab}{}_b C^\dagger{}^c{}_{ac} + \\
& \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \right. \\
& \quad \left. \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} \right) C^a{}_a{}^b \\
& C^\dagger{}^c{}_{bc} + \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \right. \\
& \quad \left. \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} \right) \\
& C^{ab}{}_a C^\dagger{}^c{}_{bc} + \left(\frac{\text{QPara2mRescalingSymbol}}{6} - \frac{\text{QPara3mRescalingSymbol}}{15} - \right. \\
& \quad \left. \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} \right) C^{ab}{}_b C^\dagger{}^c{}_{ca} + \\
& \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \right. \\
& \quad \left. \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} \right) C^a{}_a{}^b \\
& C^\dagger{}^c{}_{cb} + \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \right. \\
& \quad \left. \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} \right) \\
& C^{ab}{}_a C^\dagger{}^c{}_{cb} + (-1 + \text{LinearMetricPara2pRescalingSymbol}) h^{ab} h^\dagger{}_{ab} + \\
& \left(\text{LinearMetricPara0pRescalingSymbol} - \frac{\text{LinearMetricPara2pRescalingSymbol}}{3} \right) h^a{}_a h^\dagger{}^b{}_b + \\
& \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& \quad \left. 15 (\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol}) \right) C^{abc} C^\dagger{}^d{}_{cd} n_a n_b + \\
& \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + \right. \right. \\
& \quad \left. \left. 4 \text{QPara3mRescalingSymbol} - 15 (\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol}) \right) \right) \\
& C^{abc} C^\dagger{}^d{}_{cd} n_a n_b + \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} + \right. \\
& \quad \left. \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + 4 \text{QPara3mRescalingSymbol} - \right. \right.
\end{aligned}$$

$$\begin{aligned}
& 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \Bigg) C^{abc} C^{\dagger}_{dc} n_a n_b + \\
& \frac{1}{3} \left(-3 \text{LinearMetricPara0pRescalingSymbol} + \text{LinearMetricPara2pRescalingSymbol} \right) \\
& h^c_c h^{\dagger}_{ab} n^a n^b + \\
& \left(-2 \text{LinearMetricPara2pRescalingSymbol} + \text{LinearMetricPerp1mRescalingSymbol} \right) h^c_a h^{\dagger}_{bc} n^a n^b + \\
& \frac{1}{3} \left(-3 \text{LinearMetricPara0pRescalingSymbol} + \text{LinearMetricPara2pRescalingSymbol} \right) \\
& h_{ab} h^{\dagger}_c n^a n^b + \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& \left. 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{bd} n_a n_c + \\
& \left(\text{QPara0pRescalingSymbol} + \frac{1}{15} \left(5 \text{QPara2mRescalingSymbol} - 5 \text{QPara2pRescalingSymbol} + \right. \right. \\
& \left. \left. \text{QPara3mRescalingSymbol} - 15 \text{QParaH1mRescalingSymbol} - 15 \text{QParaT1mRescalingSymbol} - \right. \right. \\
& \left. \left. 5 \text{QPerp2pRescalingSymbol} + 15 \text{QPerpH0pRescalingSymbol} \right) \right) C^{ab}_b C^{\dagger cd}_d n_a n_c + \\
& \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + \right. \right. \\
& \left. \left. 4 \text{QPara3mRescalingSymbol} - 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) \\
& C^{abc} C^{\dagger}_{bd} n_a n_c + \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} + \right. \\
& \left. \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + 4 \text{QPara3mRescalingSymbol} - \right. \right. \\
& \left. \left. 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) \\
& C^{abc} C^{\dagger}_{db} n_a n_c + \frac{1}{15} \left(5 \text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} - \right. \\
& \left. 15 \left(\text{QParaH1mRescalingSymbol} + \text{QParaT1mRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{ad} n_b n_c + \\
& \frac{1}{30} \left(30 \text{QPara0pRescalingSymbol} - 5 \text{QPara2mRescalingSymbol} - 10 \text{QPara2pRescalingSymbol} + \right. \\
& \left. 2 \text{QPara3mRescalingSymbol} + 15 \text{QParaH1mRescalingSymbol} - 30 \text{QParaT1mRescalingSymbol} + \right. \\
& \left. 5 \text{QPerp2pRescalingSymbol} - 15 \text{QPerpH0pRescalingSymbol} \right) C^a_a C^{\dagger d}_d n_b n_c + \\
& \frac{1}{30} \left(30 \text{QPara0pRescalingSymbol} - 5 \text{QPara2mRescalingSymbol} - 10 \text{QPara2pRescalingSymbol} + \right. \\
& \left. 2 \text{QPara3mRescalingSymbol} + 15 \text{QParaH1mRescalingSymbol} - 30 \text{QParaT1mRescalingSymbol} + \right. \\
& \left. 5 \text{QPerp2pRescalingSymbol} - 15 \text{QPerpH0pRescalingSymbol} \right) C^{ab}_a C^{\dagger d}_d n_b n_c + \\
& \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right.
\end{aligned}$$

$$\begin{aligned}
& 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{ad} n_b n_c + \\
& \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{da} n_b n_c + \\
& \left. \left(\text{APara0mRescalingSymbol} + \frac{1}{96} \left(9 \text{APara2mRescalingSymbol} + 8 \left(2 \text{QPara2mRescalingSymbol} + \right. \right. \right. \right. \\
& \quad \left. \left. \left. 6 \text{QPara2pRescalingSymbol} - 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) \right) \\
& C^{abc} C^{\dagger}_{bc} n_a n_d + \frac{1}{96} \left(-96 \text{APara0mRescalingSymbol} - 9 \text{APara2mRescalingSymbol} + \right. \\
& \quad \left. 8 \left(2 \text{QPara2mRescalingSymbol} + 6 \text{QPara2pRescalingSymbol} - \right. \right. \\
& \quad \left. \left. 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{bc} n_a n_d + \\
& \frac{1}{96} \left(-96 \text{APara0mRescalingSymbol} - 9 \text{APara2mRescalingSymbol} + \right. \\
& \quad \left. 8 \left(2 \text{QPara2mRescalingSymbol} + 6 \text{QPara2pRescalingSymbol} - \right. \right. \\
& \quad \left. \left. 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{cb} n_a n_d + \\
& \left. \left(\text{APara0mRescalingSymbol} + \frac{1}{96} \left(9 \text{APara2mRescalingSymbol} + 8 \left(2 \text{QPara2mRescalingSymbol} + \right. \right. \right. \right. \right. \\
& \quad \left. \left. \left. 6 \text{QPara2pRescalingSymbol} - 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) \right) \\
& C^{abc} C^{\dagger}_{cb} n_a n_d + \frac{1}{30} \left(30 \text{QPara0pRescalingSymbol} - 5 \text{QPara2mRescalingSymbol} - \right. \\
& \quad \left. 10 \text{QPara2pRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + 15 \text{QParaH1mRescalingSymbol} - \right. \\
& \quad \left. 30 \text{QParaT1mRescalingSymbol} + 5 \text{QPerp2pRescalingSymbol} - 15 \text{QPerpH0pRescalingSymbol} \right) \\
& C^{ab}_{b} C^{\dagger}_{c^d} n_a n_d + \frac{1}{30} \left(30 \text{QPara0pRescalingSymbol} - 5 \text{QPara2mRescalingSymbol} - \right. \\
& \quad \left. 10 \text{QPara2pRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + 15 \text{QParaH1mRescalingSymbol} - \right. \\
& \quad \left. 30 \text{QParaT1mRescalingSymbol} + 5 \text{QPerp2pRescalingSymbol} - 15 \text{QPerpH0pRescalingSymbol} \right) \\
& C^{ab}_{b} C^{\dagger}_{c^d} n_a n_d + \left(\text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{16} + \right. \\
& \quad \left. \frac{1}{6} \left(3 \text{APerp1pRescalingSymbol} - 2 \text{QPara2mRescalingSymbol} + 3 \text{QPara2pRescalingSymbol} - \right. \right. \\
& \quad \left. \left. \text{QPara3mRescalingSymbol} + 3 \text{QPerp2pRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{bc} n_a n_d + \\
& \frac{1}{48} \left(-48 \text{APara0mRescalingSymbol} + 9 \text{APara2mRescalingSymbol} - \right. \\
& \quad \left. 8 \left(3 \text{APerp1pRescalingSymbol} + 2 \text{QPara2mRescalingSymbol} - 3 \text{QPara2pRescalingSymbol} + \right. \right. \\
& \quad \left. \left. \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) C^{abc} C^{\dagger}_{cb} n_a n_d + \\
& \frac{1}{48} \left(-48 \text{APara0mRescalingSymbol} - 6 \text{APara1pRescalingSymbol} + 9 \text{APara2mRescalingSymbol} - \right.
\end{aligned}$$

$$\begin{aligned}
& 6 \text{ APara2pRescalingSymbol} + 24 \text{ QPara1pRescalingSymbol} - 16 \text{ QPara2mRescalingSymbol} + \\
& 24 \text{ QPara2pRescalingSymbol} - 8 \text{ QPara3mRescalingSymbol} + 6 \text{ QPerp2pRescalingSymbol} \Big) \\
& C^{abc} C^{\dagger}_{ac}{}^d n_b n_d + \frac{1}{48} \Big(48 \text{ APara0mRescalingSymbol} + 6 \text{ APara1pRescalingSymbol} - \\
& 9 \text{ APara2mRescalingSymbol} + 6 \text{ APara2pRescalingSymbol} + 24 \text{ QPara1pRescalingSymbol} - \\
& 16 \text{ QPara2mRescalingSymbol} + 24 \text{ QPara2pRescalingSymbol} - \\
& 8 \text{ QPara3mRescalingSymbol} + 6 \text{ QPerp2pRescalingSymbol} \Big) C^{abc} C^{\dagger}_{ca}{}^d n_b n_d + \\
& \frac{1}{96} \Big(96 \text{ APara0mRescalingSymbol} + 12 \text{ APara1pRescalingSymbol} + 9 \text{ APara2mRescalingSymbol} - \\
& 12 \text{ APara2pRescalingSymbol} - 48 \text{ QPara1pRescalingSymbol} + \\
& 16 \text{ QPara2mRescalingSymbol} + 48 \text{ QPara2pRescalingSymbol} - \\
& 16 \text{ QPara3mRescalingSymbol} + 12 \text{ QPerp2pRescalingSymbol} \Big) C^{abc} C^{\dagger}_{ca}{}^d n_b n_d + \\
& \frac{1}{96} \Big(-96 \text{ APara0mRescalingSymbol} - 12 \text{ APara1pRescalingSymbol} - 9 \text{ APara2mRescalingSymbol} + \\
& 12 \text{ APara2pRescalingSymbol} - 48 \text{ QPara1pRescalingSymbol} + 16 \text{ QPara2mRescalingSymbol} + \\
& 48 \text{ QPara2pRescalingSymbol} - 16 \text{ QPara3mRescalingSymbol} + 12 \text{ QPerp2pRescalingSymbol} \Big) \\
& C^{abc} C^{\dagger}_{ca}{}^d n_b n_d + \left(\frac{\text{APara0pRescalingSymbol}}{4} - \frac{\text{APara1mRescalingSymbol}}{4} + \right. \\
& \frac{9 \text{ APara2mRescalingSymbol}}{64} - \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \\
& \frac{\text{QPara2mRescalingSymbol}}{12} - \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \\
& \frac{\text{QParaH1mRescalingSymbol}}{4} - \text{QParaT1mRescalingSymbol} - \\
& \left. \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} \right) C^a{}_a{}^b C^{\dagger c}{}_c{}^d n_b n_d + \\
& \left(-\frac{\text{APara0pRescalingSymbol}}{4} + \frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{ APara2mRescalingSymbol}}{64} + \right. \\
& \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{4} - \\
& \left. \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} \right) \\
& C^a{}_a{}^b C^{\dagger c}{}_c{}^d n_b n_d + \left(-\frac{\text{APara0pRescalingSymbol}}{4} + \frac{\text{APara1mRescalingSymbol}}{4} - \right. \\
& \frac{9 \text{ APara2mRescalingSymbol}}{64} + \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \\
& \frac{\text{QPara2mRescalingSymbol}}{12} - \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \\
& \left. \frac{\text{QParaH1mRescalingSymbol}}{4} - \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} \right)
\end{aligned}$$

$$\begin{aligned}
& \left(\frac{\text{QParaH1mRescalingSymbol}}{4} - \text{QParaT1mRescalingSymbol} - \right. \\
& \left. \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} \right) C^a{}_b C^{\dagger c d}{}_c n_b n_d + \\
& \left(\frac{\text{APara0pRescalingSymbol}}{4} - \frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{ APara2mRescalingSymbol}}{64} - \right. \\
& \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{4} - \\
& \left. \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} \right) \\
& C^a{}_b C^{\dagger c d}{}_c n_b n_d + \frac{1}{96} \left(-96 \text{ APara0mRescalingSymbol} - 9 \text{ APara2mRescalingSymbol} + \right. \\
& 8 \left(2 \text{ QPara2mRescalingSymbol} + 6 \text{ QPara2pRescalingSymbol} - \right. \\
& \left. 2 \text{ QPara3mRescalingSymbol} - 3 \text{ QPerp2pRescalingSymbol} \right) \left. \right) C^{abc} C^{\dagger d}{}_{ac} n_b n_d + \\
& \left(\text{APara0mRescalingSymbol} + \frac{1}{96} \left(9 \text{ APara2mRescalingSymbol} + 8 \left(2 \text{ QPara2mRescalingSymbol} + \right. \right. \right. \\
& \left. \left. 6 \text{ QPara2pRescalingSymbol} - 2 \text{ QPara3mRescalingSymbol} - 3 \text{ QPerp2pRescalingSymbol} \right) \right) \left. \right) \\
& C^{abc} C^{\dagger d}{}_{ca} n_b n_d + \frac{1}{48} \left(48 \text{ APara0mRescalingSymbol} + 6 \text{ APara1pRescalingSymbol} - \right. \\
& 9 \text{ APara2mRescalingSymbol} + 6 \text{ APara2pRescalingSymbol} + 24 \text{ QPara1pRescalingSymbol} - \\
& 16 \text{ QPara2mRescalingSymbol} + 24 \text{ QPara2pRescalingSymbol} - \\
& 8 \text{ QPara3mRescalingSymbol} + 6 \text{ QPerp2pRescalingSymbol} \left. \right) C^{abc} C^{\dagger d}{}_{ab} n_c n_d + \\
& \frac{1}{15} \left(5 \text{ QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} - \right. \\
& 15 \left(\text{QParaH1mRescalingSymbol} + \text{QParaT1mRescalingSymbol} \right) \left. \right) C^{ab}{}_b C^{\dagger c d}{}_a n_c n_d + \\
& \frac{1}{48} \left(-48 \text{ APara0mRescalingSymbol} - 6 \text{ APara1pRescalingSymbol} + 9 \text{ APara2mRescalingSymbol} - \right. \\
& 6 \text{ APara2pRescalingSymbol} + 24 \text{ QPara1pRescalingSymbol} - \\
& 16 \text{ QPara2mRescalingSymbol} + 24 \text{ QPara2pRescalingSymbol} - \\
& 8 \text{ QPara3mRescalingSymbol} + 6 \text{ QPerp2pRescalingSymbol} \left. \right) C^{abc} C^{\dagger d}{}_{ab} n_c n_d + \\
& \frac{1}{96} \left(-96 \text{ APara0mRescalingSymbol} - 12 \text{ APara1pRescalingSymbol} - 9 \text{ APara2mRescalingSymbol} + \right. \\
& 12 \text{ APara2pRescalingSymbol} - 48 \text{ QPara1pRescalingSymbol} + 16 \text{ QPara2mRescalingSymbol} + \\
& 48 \text{ QPara2pRescalingSymbol} - 16 \text{ QPara3mRescalingSymbol} + 12 \text{ QPerp2pRescalingSymbol} \left. \right) \\
& C^{abc} C^{\dagger d}{}_{ba} n_c n_d + \frac{1}{30} \left(-5 \text{ QPara2mRescalingSymbol} + 2 \text{ QPara3mRescalingSymbol} + \right. \\
& 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{ QParaT1mRescalingSymbol} \right) \left. \right) C^a{}_b C^{\dagger c d}{}_b n_c n_d +
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& \quad \left. 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) \right) C^{ab}{}_a C^{\dagger cd}{}_b n_c n_d + \\
& \frac{1}{96} \left(96 \text{APara0mRescalingSymbol} + 12 \text{APara1pRescalingSymbol} + 9 \text{APara2mRescalingSymbol} - \right. \\
& \quad \left. 12 \text{APara2pRescalingSymbol} - 48 \text{QPara1pRescalingSymbol} + 16 \text{QPara2mRescalingSymbol} + \right. \\
& \quad \left. 48 \text{QPara2pRescalingSymbol} - 16 \text{QPara3mRescalingSymbol} + 12 \text{QPerp2pRescalingSymbol} \right) \\
& C^{abc} C^{\dagger d}{}_b n_c n_d + \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& \quad \left. 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) \right) C^{ab}{}_b C^{\dagger cd}{}_a n_c n_d + \\
& \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} + \right. \\
& \quad \left. \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + 4 \text{QPara3mRescalingSymbol} - \right. \right. \\
& \quad \left. \left. 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) C^{ab}{}_a C^{\dagger cd}{}_b n_c n_d + \\
& \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + \right. \right. \\
& \quad \left. \left. 4 \text{QPara3mRescalingSymbol} - 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) \\
& C^{ab}{}_a C^{\dagger cd}{}_b n_c n_d + \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
& \quad \left. 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) \right) C^{ab}{}_b C^{\dagger cd}{}_a n_c n_d + \\
& \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + \right. \right. \\
& \quad \left. \left. 4 \text{QPara3mRescalingSymbol} - 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) \\
& C^{ab}{}_a C^{\dagger cd}{}_b n_c n_d + \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} + \right. \\
& \quad \left. \frac{1}{60} \left(5 \text{QPara2mRescalingSymbol} + 4 \text{QPara3mRescalingSymbol} - \right. \right. \\
& \quad \left. \left. 15 \left(\text{QParaH1mRescalingSymbol} + 4 \text{QParaT1mRescalingSymbol} \right) \right) \right) C^{ab}{}_a C^{\dagger cd}{}_b n_c n_d + \\
& \left(\text{APara0mRescalingSymbol} + \frac{1}{96} \left(9 \text{APara2mRescalingSymbol} + 8 \left(2 \text{QPara2mRescalingSymbol} + \right. \right. \right. \\
& \quad \left. \left. 6 \text{QPara2pRescalingSymbol} - 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) \right) \right) \\
& C^{abc} C^{\dagger d}{}_{ab} n_c n_d + \frac{1}{96} \left(-96 \text{APara0mRescalingSymbol} - 9 \text{APara2mRescalingSymbol} + \right.
\end{aligned}$$

$$\begin{aligned}
& 8 \left(2 \text{QPara2mRescalingSymbol} + 6 \text{QPara2pRescalingSymbol} - \right. \\
& \quad \left. 2 \text{QPara3mRescalingSymbol} - 3 \text{QPerp2pRescalingSymbol} \right) C^{abc} C^{\dagger}_{ba} n_c n_d + \\
& \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \frac{\text{QPara3mRescalingSymbol}}{5} + \right. \\
& \quad \left. 3 \text{QParaT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{e} n_a n_b n_c n_d + \\
& \left(\text{LinearMetricPara0pRescalingSymbol} + \frac{2 \text{LinearMetricPara2pRescalingSymbol}}{3} + \right. \\
& \quad \left. \text{LinearMetricPerp0pRescalingSymbol} - \text{LinearMetricPerp1mRescalingSymbol} \right) \\
& h_{ab} h^{\dagger}_{cd} n^a n^b n^c n^d + \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \right. \\
& \quad \left. \frac{\text{QPara3mRescalingSymbol}}{5} + 3 \text{QParaT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{d} n_a n_b n_c n_e + \\
& \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \frac{\text{QPara3mRescalingSymbol}}{5} + \right. \\
& \quad \left. 3 \text{QParaT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{d} n_a n_b n_c n_e + \\
& \left(-3 \text{QPara1pRescalingSymbol} - \frac{\text{QPara2mRescalingSymbol}}{6} - 2 \text{QPara2pRescalingSymbol} + \right. \\
& \quad \frac{4 \text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} + \\
& \quad \left. \frac{\text{QPerp2pRescalingSymbol}}{4} - \frac{\text{QPerpH1mRescalingSymbol}}{2} + \text{QPerpT1mRescalingSymbol} \right) \\
& C^{abc} C^{\dagger}_{c} n_a n_b n_d n_e + \left(-\frac{\text{APara1mRescalingSymbol}}{4} + \frac{\text{APara1pRescalingSymbol}}{8} - \right. \\
& \quad \frac{9 \text{APara2mRescalingSymbol}}{64} + \frac{\text{APara2pRescalingSymbol}}{8} - \frac{\text{APerp1mRescalingSymbol}}{4} + \\
& \quad \frac{\text{APerp1pRescalingSymbol}}{2} + \frac{3 \text{QPara1pRescalingSymbol}}{2} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \quad 2 \text{QPara2pRescalingSymbol} + \frac{4 \text{QPara3mRescalingSymbol}}{15} + \\
& \quad \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{8} + \\
& \quad \left. \frac{\text{QPerpH1mRescalingSymbol}}{4} + \text{QPerpT1mRescalingSymbol} \right) C^{abc} C^{\dagger}_{c} n_a n_b n_d n_e + \\
& \left(\frac{\text{APara1mRescalingSymbol}}{4} - \frac{\text{APara1pRescalingSymbol}}{8} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \right.
\end{aligned}$$

$$\begin{aligned}
& \frac{A\text{Para2pRescalingSymbol}}{8} + \frac{A\text{Perp1mRescalingSymbol}}{4} - \frac{A\text{Perp1pRescalingSymbol}}{2} + \\
& \frac{3 \text{QPara1pRescalingSymbol}}{2} + \frac{\text{QPara2mRescalingSymbol}}{12} - 2 \text{QPara2pRescalingSymbol} + \\
& \frac{4 \text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} - \\
& \left(\frac{\text{QPerp2pRescalingSymbol}}{8} + \frac{\text{QPerpH1mRescalingSymbol}}{4} + \text{QPerpT1mRescalingSymbol} \right) \\
& C^{abc} C^{\dagger de}_c n_a n_b n_d n_e + \left(-3 \text{QPara1pRescalingSymbol} - \frac{\text{QPara2mRescalingSymbol}}{6} - \right. \\
& 2 \text{QPara2pRescalingSymbol} + \frac{4 \text{QPara3mRescalingSymbol}}{15} - \\
& \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} + \frac{\text{QPerp2pRescalingSymbol}}{4} - \\
& \left. \frac{\text{QPerpH1mRescalingSymbol}}{2} + \text{QPerpT1mRescalingSymbol} \right) C^{abc} C^{\dagger de}_b n_a n_c n_d n_e + \\
& \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \frac{\text{QPara3mRescalingSymbol}}{5} + \right. \\
& \left. 3 \text{QParaT1mRescalingSymbol} \right) C^{ab}_b C^{\dagger cde} n_a n_c n_d n_e + \\
& \left(\frac{A\text{Para1mRescalingSymbol}}{4} - \frac{A\text{Para1pRescalingSymbol}}{8} + \frac{9 A\text{Para2mRescalingSymbol}}{64} - \right. \\
& \frac{A\text{Para2pRescalingSymbol}}{8} + \frac{A\text{Perp1mRescalingSymbol}}{4} - \frac{A\text{Perp1pRescalingSymbol}}{2} + \\
& \frac{3 \text{QPara1pRescalingSymbol}}{2} + \frac{\text{QPara2mRescalingSymbol}}{12} - 2 \text{QPara2pRescalingSymbol} + \\
& \frac{4 \text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} - \\
& \left. \frac{\text{QPerp2pRescalingSymbol}}{8} + \frac{\text{QPerpH1mRescalingSymbol}}{4} + \text{QPerpT1mRescalingSymbol} \right) \\
& C^{abc} C^{\dagger de}_b n_a n_c n_d n_e + \left(-\frac{A\text{Para1mRescalingSymbol}}{4} + \frac{A\text{Para1pRescalingSymbol}}{8} - \right. \\
& \frac{9 A\text{Para2mRescalingSymbol}}{64} + \frac{A\text{Para2pRescalingSymbol}}{8} - \frac{A\text{Perp1mRescalingSymbol}}{4} + \\
& \frac{A\text{Perp1pRescalingSymbol}}{2} + \frac{3 \text{QPara1pRescalingSymbol}}{2} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \left. 2 \text{QPara2pRescalingSymbol} + \frac{4 \text{QPara3mRescalingSymbol}}{15} + \right)
\end{aligned}$$

$$\begin{aligned}
& \left(\frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{8} + \right. \\
& \left. \frac{\text{QPerpH1mRescalingSymbol}}{4} + \text{QPerpT1mRescalingSymbol} \right) C^{abc} C^{\dagger de}_b n_a n_c n_d n_e + \\
& \left(6 \text{QPara1pRescalingSymbol} + \frac{\text{QPara2mRescalingSymbol}}{3} - 2 \text{QPara2pRescalingSymbol} + \right. \\
& \frac{4 \text{QPara3mRescalingSymbol}}{15} + \text{QParaH1mRescalingSymbol} + \text{QParaT1mRescalingSymbol} - \\
& \left. \frac{\text{QPerp2pRescalingSymbol}}{2} + \text{QPerpH1mRescalingSymbol} + \text{QPerpT1mRescalingSymbol} \right) \\
& C^{abc} C^{\dagger de}_a n_b n_c n_d n_e + \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \right. \\
& \left. \frac{\text{QPara3mRescalingSymbol}}{5} + 3 \text{QParaT1mRescalingSymbol} \right) C^{ab}_a C^{\dagger cde} n_b n_c n_d n_e + \\
& \left(-3 \text{QPara0pRescalingSymbol} + \text{QPara2pRescalingSymbol} - \frac{\text{QPara3mRescalingSymbol}}{5} + \right. \\
& \left. 3 \text{QParaT1mRescalingSymbol} \right) C^{ab}_a C^{\dagger cde} n_b n_c n_d n_e + \\
& \left(-3 \text{QPara1pRescalingSymbol} - \frac{\text{QPara2mRescalingSymbol}}{6} - 2 \text{QPara2pRescalingSymbol} + \right. \\
& \frac{4 \text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} + \\
& \left. \frac{\text{QPerp2pRescalingSymbol}}{4} - \frac{\text{QPerpH1mRescalingSymbol}}{2} + \text{QPerpT1mRescalingSymbol} \right) \\
& C^{abc} C^{\dagger de}_a n_b n_c n_d n_e + \left(-3 \text{QPara1pRescalingSymbol} - \frac{\text{QPara2mRescalingSymbol}}{6} - \right. \\
& 2 \text{QPara2pRescalingSymbol} + \frac{4 \text{QPara3mRescalingSymbol}}{15} - \\
& \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} + \frac{\text{QPerp2pRescalingSymbol}}{4} - \\
& \left. \frac{\text{QPerpH1mRescalingSymbol}}{2} + \text{QPerpT1mRescalingSymbol} \right) C^{abc} C^{\dagger de}_a n_b n_c n_d n_e + \\
& \left(9 \text{QPara0pRescalingSymbol} + 6 \text{QPara2pRescalingSymbol} - \frac{2 \text{QPara3mRescalingSymbol}}{5} - \right. \\
& 9 \text{QParaT1mRescalingSymbol} + \text{QPerpT0pRescalingSymbol} - \\
& \left. 9 \text{QPerpT1mRescalingSymbol} \right) C^{abc} C^{\dagger def} n_a n_b n_c n_d n_e n_f
\end{aligned}$$

** xAct`PSALter`Private`Diagnostic: the value of the variable

xAct`PSALter`Private`SystemOfEquations\$95538 will now be printed.

$$\begin{aligned}
 & \text{LinearMetricPara0pRescalingSymbol} - \frac{\text{LinearMetricPara2pRescalingSymbol}}{3} == 0 \&\& \\
 & -1 + \text{LinearMetricPara2pRescalingSymbol} == 0 \&\& \\
 & \frac{1}{3} \left(-3 \text{LinearMetricPara0pRescalingSymbol} + \text{LinearMetricPara2pRescalingSymbol} \right) == 0 \&\& \\
 & \text{LinearMetricPara0pRescalingSymbol} + \frac{2 \text{LinearMetricPara2pRescalingSymbol}}{3} + \\
 & \quad \text{LinearMetricPerp0pRescalingSymbol} - \text{LinearMetricPerp1mRescalingSymbol} == 0 \&\& \\
 & -2 \text{LinearMetricPara2pRescalingSymbol} + \text{LinearMetricPerp1mRescalingSymbol} == 0 \&\& \\
 & -\text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{32} + \\
 & \quad \frac{1}{6} \left(-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} \right) == 0 \&\& \text{APara0mRescalingSymbol} + \\
 & \quad \frac{3 \text{APara2mRescalingSymbol}}{32} + \frac{1}{6} \left(-\text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} \right) == 0 \&\& \\
 & -\text{APara0mRescalingSymbol} + \frac{3 \text{APara2mRescalingSymbol}}{16} + \\
 & \quad \frac{1}{6} \left(-6 + 2 \text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} \right) == 0 \&\& \\
 & \text{APara0mRescalingSymbol} - \frac{3 \text{APara2mRescalingSymbol}}{16} + \\
 & \quad \frac{1}{6} \left(2 \text{QPara2mRescalingSymbol} + \text{QPara3mRescalingSymbol} \right) == 0 \&\& \\
 & \frac{1}{30} \left(-5 \text{QPara2mRescalingSymbol} + 2 \text{QPara3mRescalingSymbol} + \right. \\
 & \quad \left. 15 \left(\text{QParaH1mRescalingSymbol} - 2 \text{QParaT1mRescalingSymbol} \right) \right) == 0 \&\& \\
 & \frac{\text{QPara2mRescalingSymbol}}{6} - \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \\
 & \quad \text{QParaT1mRescalingSymbol} == 0 \&\& \\
 & \frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \\
 & \quad \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} == 0 \&\& \\
 & -\frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \frac{\text{QPara2mRescalingSymbol}}{12} - \\
 & \quad \frac{\text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} == 0 \&\& \\
 & -\frac{\text{QPara2mRescalingSymbol}}{3} - \frac{\text{QPara3mRescalingSymbol}}{15} + \text{QParaH1mRescalingSymbol} + \\
 & \quad \text{QParaT1mRescalingSymbol} == 0 \&\& -3 \text{QPara0pRescalingSymbol} +
 \end{aligned}$$

$$\begin{aligned}
& Q\text{Para2pRescalingSymbol} - \frac{Q\text{Para3mRescalingSymbol}}{5} + 3 Q\text{ParaT1mRescalingSymbol} == 0 \ \&\& \\
& \frac{1}{15} \left(5 Q\text{Para2mRescalingSymbol} + Q\text{Para3mRescalingSymbol} - \right. \\
& \quad \left. 15 (Q\text{ParaH1mRescalingSymbol} + Q\text{ParaT1mRescalingSymbol}) \right) == 0 \ \&\& \\
& \frac{A\text{Para1mRescalingSymbol}}{4} - \frac{9 A\text{Para2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 4 Q\text{Para3mRescalingSymbol} - 15 (Q\text{ParaH1mRescalingSymbol} + 4 Q\text{ParaT1mRescalingSymbol}) \right) == \\
& 0 \ \&\& - \frac{A\text{Para1mRescalingSymbol}}{4} + \frac{9 A\text{Para2mRescalingSymbol}}{64} + \frac{1}{60} \left(5 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 4 Q\text{Para3mRescalingSymbol} - 15 (Q\text{ParaH1mRescalingSymbol} + 4 Q\text{ParaT1mRescalingSymbol}) \right) == \\
& 0 \ \&\& A\text{Para0mRescalingSymbol} + \frac{1}{96} \left(9 A\text{Para2mRescalingSymbol} + 8 \left(2 Q\text{Para2mRescalingSymbol} + \right. \right. \\
& \quad \left. \left. 6 Q\text{Para2pRescalingSymbol} - 2 Q\text{Para3mRescalingSymbol} - 3 Q\text{Perp2pRescalingSymbol} \right) \right) == \\
& 0 \ \&\& \frac{1}{96} \left(-96 A\text{Para0mRescalingSymbol} - 9 A\text{Para2mRescalingSymbol} + 8 \left(2 Q\text{Para2mRescalingSymbol} + \right. \right. \\
& \quad \left. \left. 6 Q\text{Para2pRescalingSymbol} - 2 Q\text{Para3mRescalingSymbol} - 3 Q\text{Perp2pRescalingSymbol} \right) \right) == \\
& 0 \ \&\& \frac{1}{48} \left(-48 A\text{Para0mRescalingSymbol} + 9 A\text{Para2mRescalingSymbol} - \right. \\
& \quad \left. 8 \left(3 A\text{Perp1pRescalingSymbol} + 2 Q\text{Para2mRescalingSymbol} - 3 Q\text{Para2pRescalingSymbol} + \right. \right. \\
& \quad \left. \left. Q\text{Para3mRescalingSymbol} - 3 Q\text{Perp2pRescalingSymbol} \right) \right) == 0 \ \&\& \\
& \frac{1}{48} \left(-48 A\text{Para0mRescalingSymbol} - 6 A\text{Para1pRescalingSymbol} + 9 A\text{Para2mRescalingSymbol} - \right. \\
& \quad \left. 6 A\text{Para2pRescalingSymbol} + 24 Q\text{Para1pRescalingSymbol} - 16 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 24 Q\text{Para2pRescalingSymbol} - 8 Q\text{Para3mRescalingSymbol} + 6 Q\text{Perp2pRescalingSymbol} \right) == 0 \ \&\& \\
& \frac{1}{48} \left(48 A\text{Para0mRescalingSymbol} + 6 A\text{Para1pRescalingSymbol} - 9 A\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 6 A\text{Para2pRescalingSymbol} + 24 Q\text{Para1pRescalingSymbol} - 16 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 24 Q\text{Para2pRescalingSymbol} - 8 Q\text{Para3mRescalingSymbol} + 6 Q\text{Perp2pRescalingSymbol} \right) == 0 \ \&\& \\
& \frac{1}{96} \left(96 A\text{Para0mRescalingSymbol} + 12 A\text{Para1pRescalingSymbol} + 9 A\text{Para2mRescalingSymbol} - \right. \\
& \quad \left. 12 A\text{Para2pRescalingSymbol} - 48 Q\text{Para1pRescalingSymbol} + 16 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 48 Q\text{Para2pRescalingSymbol} - 16 Q\text{Para3mRescalingSymbol} + 12 Q\text{Perp2pRescalingSymbol} \right) == 0 \ \&\& \\
& \frac{1}{96} \left(-96 A\text{Para0mRescalingSymbol} - 12 A\text{Para1pRescalingSymbol} - 9 A\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 12 A\text{Para2pRescalingSymbol} - 48 Q\text{Para1pRescalingSymbol} + 16 Q\text{Para2mRescalingSymbol} + \right. \\
& \quad \left. 48 Q\text{Para2pRescalingSymbol} - 16 Q\text{Para3mRescalingSymbol} + 12 Q\text{Perp2pRescalingSymbol} \right) == 0 \ \&\& \\
& A\text{Para0mRescalingSymbol} - \frac{3 A\text{Para2mRescalingSymbol}}{16} + \\
& \frac{1}{6} \left(3 A\text{Perp1pRescalingSymbol} - 2 Q\text{Para2mRescalingSymbol} + 3 Q\text{Para2pRescalingSymbol} - \right. \\
& \quad \left. Q\text{Para3mRescalingSymbol} + 3 Q\text{Perp2pRescalingSymbol} \right) == 0 \ \&\&
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{30} (30 \text{QPara0pRescalingSymbol} - 5 \text{QPara2mRescalingSymbol} - 10 \text{QPara2pRescalingSymbol} + \\
& \quad 2 \text{QPara3mRescalingSymbol} + 15 \text{QParaH1mRescalingSymbol} - 30 \text{QParaT1mRescalingSymbol} + \\
& \quad 5 \text{QPerp2pRescalingSymbol} - 15 \text{QPerpH0pRescalingSymbol}) == 0 \&\& \\
& \frac{\text{APara0pRescalingSymbol}}{4} - \frac{\text{APara1mRescalingSymbol}}{4} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \\
& \quad \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \quad \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{4} - \\
& \quad \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} == 0 \&\& \\
& - \frac{\text{APara0pRescalingSymbol}}{4} + \frac{\text{APara1mRescalingSymbol}}{4} - \frac{9 \text{APara2mRescalingSymbol}}{64} + \\
& \quad \frac{\text{APara2pRescalingSymbol}}{12} + \text{QPara0pRescalingSymbol} + \frac{\text{QPara2mRescalingSymbol}}{12} - \\
& \quad \frac{\text{QPara2pRescalingSymbol}}{3} + \frac{\text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{4} - \\
& \quad \text{QParaT1mRescalingSymbol} - \frac{\text{QPerp2pRescalingSymbol}}{12} + \frac{\text{QPerpH0pRescalingSymbol}}{4} == 0 \&\& \\
& \text{QPara0pRescalingSymbol} + \frac{1}{15} (5 \text{QPara2mRescalingSymbol} - 5 \text{QPara2pRescalingSymbol} + \\
& \quad \text{QPara3mRescalingSymbol} - 15 \text{QParaH1mRescalingSymbol} - 15 \text{QParaT1mRescalingSymbol} - \\
& \quad 5 \text{QPerp2pRescalingSymbol} + 15 \text{QPerpH0pRescalingSymbol}) == 0 \&\& \\
& 9 \text{QPara0pRescalingSymbol} + 6 \text{QPara2pRescalingSymbol} - \frac{2 \text{QPara3mRescalingSymbol}}{5} - \\
& \quad 9 \text{QParaT1mRescalingSymbol} + \text{QPerpT0pRescalingSymbol} - 9 \text{QPerpT1mRescalingSymbol} == 0 \&\& \\
& - 3 \text{QPara1pRescalingSymbol} - \frac{\text{QPara2mRescalingSymbol}}{6} - 2 \text{QPara2pRescalingSymbol} + \\
& \quad \frac{4 \text{QPara3mRescalingSymbol}}{15} - \frac{\text{QParaH1mRescalingSymbol}}{2} + \text{QParaT1mRescalingSymbol} + \\
& \quad \frac{\text{QPerp2pRescalingSymbol}}{4} - \frac{\text{QPerpH1mRescalingSymbol}}{2} + \text{QPerpT1mRescalingSymbol} == 0 \&\& \\
& \frac{\text{APara1mRescalingSymbol}}{4} - \frac{\text{APara1pRescalingSymbol}}{8} + \frac{9 \text{APara2mRescalingSymbol}}{64} - \\
& \quad \frac{\text{APara2pRescalingSymbol}}{8} + \frac{\text{APerp1mRescalingSymbol}}{4} - \frac{\text{APerp1pRescalingSymbol}}{2} + \\
& \quad \frac{3 \text{QPara1pRescalingSymbol}}{2} + \frac{\text{QPara2mRescalingSymbol}}{12} - 2 \text{QPara2pRescalingSymbol} + \\
& \quad \frac{4 \text{QPara3mRescalingSymbol}}{15} + \frac{\text{QParaH1mRescalingSymbol}}{4} + \text{QParaT1mRescalingSymbol} -
\end{aligned}$$

$$\begin{aligned}
& \frac{QPerp2pRescalingSymbol}{8} + \frac{QPerpH1mRescalingSymbol}{4} + QPerpT1mRescalingSymbol == 0 \&\& \\
& - \frac{APara1mRescalingSymbol}{4} + \frac{APara1pRescalingSymbol}{8} - \frac{9 APara2mRescalingSymbol}{64} + \\
& \frac{APara2pRescalingSymbol}{8} - \frac{APerp1mRescalingSymbol}{4} + \frac{APerp1pRescalingSymbol}{2} + \\
& \frac{3 QPara1pRescalingSymbol}{2} + \frac{QPara2mRescalingSymbol}{12} - 2 QPara2pRescalingSymbol + \\
& \frac{4 QPara3mRescalingSymbol}{15} + \frac{QParaH1mRescalingSymbol}{4} + QParaT1mRescalingSymbol - \\
& \frac{QPerp2pRescalingSymbol}{8} + \frac{QPerpH1mRescalingSymbol}{4} + QPerpT1mRescalingSymbol == 0 \&\& \\
& 6 QPara1pRescalingSymbol + \frac{QPara2mRescalingSymbol}{3} - 2 QPara2pRescalingSymbol + \\
& \frac{4 QPara3mRescalingSymbol}{15} + QParaH1mRescalingSymbol + QParaT1mRescalingSymbol - \\
& \frac{QPerp2pRescalingSymbol}{2} + QPerpH1mRescalingSymbol + QPerpT1mRescalingSymbol == 0
\end{aligned}$$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable

xAct`PSALter`Private`RescalingSolutionsValue will now be printed.

$$\begin{aligned}
& \left\{ APara0mRescalingSymbol \rightarrow -\frac{1}{6}, APara0pRescalingSymbol \rightarrow \frac{2}{3}, \right. \\
& APara1mRescalingSymbol \rightarrow 1, APara1pRescalingSymbol \rightarrow 2, APara2mRescalingSymbol \rightarrow \frac{16}{9}, \\
& APara2pRescalingSymbol \rightarrow 2, APerp1mRescalingSymbol \rightarrow 2, APerp1pRescalingSymbol \rightarrow 1, \\
& LinearMetricPara0pRescalingSymbol \rightarrow \frac{1}{3}, LinearMetricPara2pRescalingSymbol \rightarrow 1, \\
& LinearMetricPerp0pRescalingSymbol \rightarrow 1, LinearMetricPerp1mRescalingSymbol \rightarrow 2, \\
& QPara0pRescalingSymbol \rightarrow \frac{1}{9}, QPara1pRescalingSymbol \rightarrow \frac{1}{2}, QPara2mRescalingSymbol \rightarrow 1, \\
& QPara2pRescalingSymbol \rightarrow \frac{1}{3}, QPara3mRescalingSymbol \rightarrow 1, QParaH1mRescalingSymbol \rightarrow \frac{1}{3}, \\
& QParaT1mRescalingSymbol \rightarrow \frac{1}{15}, QPerp2pRescalingSymbol \rightarrow \frac{2}{3}, QPerpH0pRescalingSymbol \rightarrow \frac{2}{9}, \\
& \left. QPerpH1mRescalingSymbol \rightarrow -\frac{10}{3}, QPerpT0pRescalingSymbol \rightarrow 1, QPerpT1mRescalingSymbol \rightarrow \frac{1}{3} \right\}
\end{aligned}$$

**** xAct`PSALter`Private`Diagnostic:** the value of the variable

xAct`PSALter`Private`RescalingSolutionsValue will now be printed.

```

{APara0mRescalingSymbol →  $\frac{i}{\sqrt{6}}$ , APara0pRescalingSymbol →  $\sqrt{\frac{2}{3}}$ ,
  APara1mRescalingSymbol → 1, APara1pRescalingSymbol →  $\sqrt{2}$ , APara2mRescalingSymbol →  $\frac{4}{3}$ ,
  APara2pRescalingSymbol →  $\sqrt{2}$ , APerp1mRescalingSymbol →  $\sqrt{2}$ , APerp1pRescalingSymbol → 1,
  LinearMetricPara0pRescalingSymbol →  $\frac{1}{\sqrt{3}}$ , LinearMetricPara2pRescalingSymbol → 1,
  LinearMetricPerp0pRescalingSymbol → 1, LinearMetricPerp1mRescalingSymbol →  $\sqrt{2}$ ,
  QPara0pRescalingSymbol →  $\frac{1}{3}$ , QPara1pRescalingSymbol →  $\frac{1}{\sqrt{2}}$ , QPara2mRescalingSymbol → 1,
  QPara2pRescalingSymbol →  $\frac{1}{\sqrt{3}}$ , QPara3mRescalingSymbol → 1, QParaH1mRescalingSymbol →  $\frac{1}{\sqrt{3}}$ ,
  QParaT1mRescalingSymbol →  $\frac{1}{\sqrt{15}}$ , QPerp2pRescalingSymbol →  $\sqrt{\frac{2}{3}}$ ,
  QPerpH0pRescalingSymbol →  $\frac{\sqrt{2}}{3}$ , QPerpH1mRescalingSymbol →  $i\sqrt{\frac{10}{3}}$ ,
  QPerpT0pRescalingSymbol → 1, QPerpT1mRescalingSymbol →  $\frac{1}{\sqrt{3}}$ }

** DefClass: Exporting the binary at MetricAffineGaugeTheory.cla.mx

** BuildPSALter: The context binaries have been rebuilt, the kernel will
    now quit. Please reload PSALter.

```