* Rank 0 tensor.

$$[T]$$

$$T = T_s^{(1)}$$

* Rank 1 tensor.

$$\begin{bmatrix} 0 & 0 & T_z \end{bmatrix}$$

$$T_z = T_{pz}^{(1)}$$

* Rank 2 tensor (s).

$$\begin{bmatrix} T_{xx} & 0 & 0 \\ 0 & T_{xx} & 0 \\ 0 & 0 & T_{zz} \end{bmatrix}$$

$$T_{xx} = -T_{du}^{(1)} + T_s^{(1)}$$
$$T_{zz} = 2T_{du}^{(1)} + T_s^{(1)}$$

* Rank 2 tensor (a). * Rank 3 tensor (s).

$$\begin{bmatrix} T_{xxx} & 0 & T_{xxz} \\ -T_{xxx} & 0 & T_{xxz} \\ 0 & 0 & T_{zzz} \\ 0 & T_{yzy} & 0 \\ T_{yzy} & 0 & 0 \\ 0 & -T_{xxx} & 0 \end{bmatrix}$$

$$T_{xxx} = T_{f2}^{(1)}$$
$$T_{xxz} = -T_{faz}^{(1)} + T_{pz}^{(1)}$$
$$T_{zzz} = 2T_{faz}^{(1)} + T_{pz}^{(1)} + 2T_{pz}^{(2)}$$
$$T_{yzy} = -T_{faz}^{(1)} + T_{pz}^{(2)}$$

* Rank 3 tensor (a).

$$\begin{bmatrix} 0 & T_{yzy} & 0 \\ -T_{yzy} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$T_{yzy} = T_{pz}^{(3)}$$

* Rank 4 tensor (sss).

$$\begin{bmatrix} T_{xxxx} & T_{xxyy} & T_{xxzz} & 0 & T_{xxzx} & 0 \\ T_{xxyy} & T_{xxxx} & T_{xxzz} & 0 & -T_{xxzx} & 0 \\ T_{xxzz} & T_{xxzz} & T_{zzzz} & 0 & 0 & 0 \\ 0 & 0 & 0 & T_{yzyz} & 0 & -T_{xxzx} \\ T_{xxzx} & -T_{xxzx} & 0 & 0 & T_{yzyz} & 0 \\ 0 & 0 & 0 & -T_{xxzx} & 0 & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} \end{bmatrix}$$

$$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$
$$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_s^{(1)}$$
$$T_{xxzz} = T_{du}^{(1)} - 4T_{g0}^{(1)} + T_s^{(1)}$$
$$T_{xxzx} = T_{ga}^{(1)}$$
$$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$
$$T_{yzyz} = T_{du}^{(2)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

* Rank 4 tensor (ssa).

$$\begin{bmatrix} 0 & 0 & T_{xxzz} & 0 & T_{xxzx} & 0 \\ 0 & 0 & T_{xxzz} & 0 & -T_{xxzx} & 0 \\ -T_{xxzz} & -T_{xxzz} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & T_{xxzx} \\ -T_{xxzx} & T_{xxzx} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -T_{xxzx} & 0 & 0 \end{bmatrix}$$

$T_{xxzz} = 3T_{du}^{(3)}$

$T_{xxzx} = -2M_{f1}^{(1)}$

* Rank 4 tensor (aas).

$$\begin{bmatrix} T_{yzyz} & 0 & 0 \\ 0 & T_{yzyz} & 0 \\ 0 & 0 & T_{xyxy} \end{bmatrix}$$

$T_{yzyz} = -2T_{du}^{(4)} + T_s^{(3)}$

$T_{xyxy} = 4T_{du}^{(4)} + T_s^{(3)}$

* Rank 4 tensor (aaa). * Rank 4 tensor (sa).

$$\begin{bmatrix} 0 & T_{xxzx} & 0 \\ 0 & -T_{xxzx} & 0 \\ 0 & 0 & 0 \\ T_{yzyz} & 0 & 0 \\ 0 & -T_{yzyz} & 0 \\ T_{xxzx} & 0 & 0 \end{bmatrix}$$

$T_{xxzx} = M_{f1}^{(2)}$

$T_{yzyz} = -3T_{du}^{(5)}$

* Rank 4 tensor (as).

$$\begin{bmatrix} 0 & 0 & 0 & T_{yzyz} & 0 & T_{yzxy} \\ T_{yzxy} & -T_{yzxy} & 0 & 0 & -T_{yzyz} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

$T_{yzyz} = -3T_{du}^{(6)}$

$T_{yzxy} = M_{f1}^{(3)}$

* Rank 4 tensor (s).

$$\begin{bmatrix} T_{xxxx} & T_{xxyy} & T_{xxzz} & 0 & T_{xxzx} & 0 & 0 & T_{xxxz} & 0 \\ T_{xxyy} & T_{xxxx} & T_{xxzz} & 0 & -T_{xxzx} & 0 & 0 & -T_{xxxz} & 0 \\ T_{zzxx} & T_{zzxx} & T_{zzzz} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & T_{yzyz} & 0 & T_{yzxy} & T_{yzzy} & 0 & T_{yzxy} \\ -T_{yzxy} & T_{yzxy} & 0 & 0 & T_{yzzy} & 0 & 0 & T_{yzyz} & 0 \\ 0 & 0 & 0 & -T_{xxxz} & 0 & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} & -T_{xxzx} & 0 & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} \end{bmatrix}$$

$$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxzz} = T_{du}^{(1)} + 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxzx} = -2M_{f1}^{(1)} + M_{f1}^{(2)} + T_{ga}^{(1)}$$

$$T_{xxxz} = -2M_{f1}^{(1)} - M_{f1}^{(2)} + T_{ga}^{(1)}$$

$$T_{zzxx} = T_{du}^{(1)} - 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{yzyz} = T_{du}^{(2)} - 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

$$T_{yzxy} = -2M_{f1}^{(1)} - T_{ga}^{(1)}$$

$$T_{yzzy} = T_{du}^{(2)} + 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

* Rank 4 tensor (a).

$$\begin{bmatrix} 0 & 0 & 0 & T_{yzyz} & 0 & T_{yzxy} & T_{yzzy} & 0 & T_{yzxy} \\ T_{yzxy} & -T_{yzxy} & 0 & 0 & -T_{yzzy} & 0 & 0 & -T_{yzyz} & 0 \\ 0 & 0 & 0 & 0 & 0 & T_{xyxy} & 0 & 0 & -T_{xyxy} \end{bmatrix}$$

$$T_{yzyz} = -2T_{du}^{(4)} - 3T_{du}^{(6)} + T_s^{(3)}$$

$$T_{yzxy} = M_{f1}^{(3)}$$

$$T_{yzzy} = 2T_{du}^{(4)} - 3T_{du}^{(6)} - T_s^{(3)}$$

$$T_{xyxy} = 4T_{du}^{(4)} + T_s^{(3)}$$

* Rank 4 tensor (t).

$$\begin{bmatrix} T_{xxxx} & 0 & T_{xxxz} \\ 0 & T_{xxxx} & 0 \\ 0 & 0 & T_{zzzz} \\ -T_{xxxz} & 0 & T_{yyzz} \\ T_{zzxx} & 0 & 0 \\ 0 & T_{xxyy} & 0 \\ 0 & T_{yzzy} & 0 \\ T_{xxxz} & 0 & -\frac{T_{xxxx}}{2} + \frac{3T_{xxyy}}{2} + T_{yyzz} - T_{yzzy} + T_{zzxx} \\ \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} & 0 & -T_{xxxz} \\ 0 & -T_{xxxz} & 0 \end{bmatrix}$$

$$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + 3T_s^{(1)}$$

$$T_{xxxz} = T_{ga}^{(1)}$$

$$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + 3T_s^{(1)}$$

$$T_{yyzz} = T_{du}^{(1)} + 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{zzxx} = T_{du}^{(1)} - 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{yzzy} = T_{du}^{(2)} + 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_s^{(1)}$$