

* Rank 0 tensor. * Rank 1 tensor.

$$[0 \quad 0 \quad M_z]$$

$$M_z = M_{pz}^{(1)}$$

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

$$\begin{bmatrix} 0 & M_{xy} & 0 \\ -M_{xy} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$M_{xy} = T_{pz}^{(1)}$$

* Rank 3 tensor (s).

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

$$M_{xxx} = M_{f2}^{(1)}$$

$$M_{xxz} = -M_{faz}^{(1)} + M_{pz}^{(1)}$$

$$M_{zzz} = 2M_{faz}^{(1)} + M_{pz}^{(1)} + 2M_{pz}^{(2)}$$

$$M_{yzy} = -M_{faz}^{(1)} + M_{pz}^{(2)}$$

* Rank 3 tensor (a).

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

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

* Rank 4 tensor (sss).

$$\begin{bmatrix} 0 & 0 & 0 & M_{xxyz} & 0 & 0 \\ 0 & 0 & 0 & -M_{xxyz} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ M_{xxyz} & -M_{xxyz} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & M_{xxyz} \\ 0 & 0 & 0 & 0 & M_{xxyz} & 0 \end{bmatrix}$$

$$M_{xxyz} = M_{gb}^{(1)}$$

* Rank 4 tensor (ssa).

$$\begin{bmatrix} 0 & 0 & 0 & M_{xxyz} & 0 & M_{xxyy} \\ 0 & 0 & 0 & -M_{xxyz} & 0 & -M_{xxyy} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ -M_{xxyz} & M_{xxyz} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & -M_{yzzx} & 0 & -M_{xxyz} \\ -M_{xxyy} & M_{xxyy} & 0 & 0 & M_{xxyz} & 0 \end{bmatrix}$$

$$\begin{aligned}
M_{xxyz} &= 2T_{f_2}^{(1)} \\
M_{xxxy} &= -2T_{faz}^{(1)} + 2T_{pz}^{(1)} \\
M_{yzzx} &= -4T_{faz}^{(1)} - T_{pz}^{(1)}
\end{aligned}$$

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

$$\begin{bmatrix} 0 & M_{yzzx} & 0 \\ -M_{yzzx} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$M_{yzzx} = -T_{pz}^{(2)}$$

* Rank 4 tensor (sa).

$$\begin{bmatrix} M_{xxyz} & 0 & M_{xxxy} \\ -M_{xxyz} & 0 & M_{xxxy} \\ 0 & 0 & M_{zzxy} \\ 0 & M_{yzzx} & 0 \\ M_{yzzx} & 0 & 0 \\ 0 & -M_{xxyz} & 0 \end{bmatrix}$$

$$M_{xxyz} = T_{f_2}^{(2)}$$

$$M_{xxxy} = -T_{faz}^{(2)} + T_{pz}^{(3)}$$

$$M_{zzxy} = 2T_{faz}^{(2)} + T_{pz}^{(3)} + 2T_{pz}^{(4)}$$

$$M_{yzzx} = -T_{faz}^{(2)} + T_{pz}^{(4)}$$

* Rank 4 tensor (as).

$$\begin{bmatrix} M_{yzxx} & -M_{yzxx} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & M_{yzzx} & 0 & -M_{yzxx} \\ M_{xyxx} & M_{xyxx} & M_{xyzz} & 0 & 0 & 0 \end{bmatrix}$$

$$M_{yzxx} = T_{f_2}^{(3)}$$

$$M_{yzzx} = -T_{faz}^{(3)} + T_{pz}^{(6)}$$

$$M_{xyxx} = -T_{faz}^{(3)} + T_{pz}^{(5)}$$

$$M_{xyzz} = 2T_{faz}^{(3)} + T_{pz}^{(5)} + 2T_{pz}^{(6)}$$

* Rank 4 tensor (s).

$$\begin{bmatrix} 0 & 0 & 0 & M_{xxyz} & 0 & M_{xxxy} & M_{xxzy} & 0 & M_{xxyx} \\ 0 & 0 & 0 & -M_{xxyz} & 0 & -M_{xxxy} & -M_{xxzy} & 0 & -M_{xxxy} \\ 0 & 0 & 0 & 0 & 0 & M_{zzxy} & 0 & 0 & -M_{zzxy} \\ M_{yzxx} & -M_{yzxx} & 0 & 0 & M_{yzzx} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & -M_{yzzx} & 0 & M_{yzzx} & -M_{yzzx} & 0 & M_{yzzx} \\ -\frac{M_{xxxy}}{2} - \frac{M_{xxzy}}{2} & \frac{M_{xxxy}}{2} + \frac{M_{xxzy}}{2} & 0 & 0 & M_{xxzy} & 0 & 0 & M_{xxyz} & 0 \end{bmatrix}$$

$$M_{xxyz} = M_{gb}^{(1)} + 2T_{f_2}^{(1)} + T_{f_2}^{(2)}$$

$$M_{xxxy} = -2T_{faz}^{(1)} - T_{faz}^{(2)} + 2T_{pz}^{(1)} + T_{pz}^{(3)}$$

$$M_{xxzy} = M_{gb}^{(1)} + 2T_{f_2}^{(1)} - T_{f_2}^{(2)}$$

$$M_{xxyx} = -2T_{faz}^{(1)} + T_{faz}^{(2)} + 2T_{pz}^{(1)} - T_{pz}^{(3)}$$

$$M_{zzxy} = 2T_{faz}^{(2)} + T_{pz}^{(3)} + 2T_{pz}^{(4)}$$

$$M_{yzxx} = M_{gb}^{(1)} - 2T_{f_2}^{(1)}$$

$$M_{yzzx} = -4T_{faz}^{(1)} - T_{faz}^{(2)} - T_{pz}^{(1)} + T_{pz}^{(4)}$$

$$M_{yzzx} = -4T_{faz}^{(1)} + T_{faz}^{(2)} - T_{pz}^{(1)} - T_{pz}^{(4)}$$

* Rank 4 tensor (a).

$$\begin{bmatrix} M_{yzxx} & -M_{yzxx} & 0 & 0 & M_{yzzx} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & M_{yzzx} & 0 & -M_{yzxx} & M_{yzzx} & 0 & -M_{yzxx} \\ M_{xyxx} & M_{xyxx} & M_{xyzz} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

$$M_{yzxx} = T_{f2}^{(3)}$$

$$M_{yzzx} = -T_{faz}^{(3)} - T_{pz}^{(2)} + T_{pz}^{(6)}$$

$$M_{yzzz} = -T_{faz}^{(3)} + T_{pz}^{(2)} + T_{pz}^{(6)}$$

$$M_{xyxx} = -T_{faz}^{(3)} + T_{pz}^{(5)}$$

$$M_{xyzz} = 2T_{faz}^{(3)} + T_{pz}^{(5)} + 2T_{pz}^{(6)}$$

* Rank 4 tensor (t).

$$\begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & M_{yyyyz} \\ 0 & 0 & 0 \\ 0 & M_{yyyyz} & 0 \\ 0 & 0 & 0 \\ 0 & 0 & -M_{yyyyz} \\ 0 & 0 & 0 \\ 0 & -M_{yyyyz} & 0 \\ 0 & 0 & 0 \\ -M_{yyyyz} & 0 & 0 \end{bmatrix}$$

$$M_{yyyyz} = -M_{gb}^{(1)}$$