# PSALTer results panel

$$\mathcal{S} = \int\int\int\int \left(\frac{1}{4}\left(2\,a_{0}\,\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta}\,\mathcal{A}^{\chi}{}_{\beta\chi} + \mathcal{A}^{\alpha\beta\chi}\left(-2\,a_{0}\,\mathcal{A}_{\beta\chi\alpha} + 4\,\mathcal{W}_{\alpha\beta\chi}\right) + 4\,\mathcal{T}^{\alpha\beta}\,h_{\alpha\beta} - a_{0}\,h^{\chi}{}_{\chi}\,\partial_{\beta}\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta} + a_{0}\,h^{\chi}{}_{\chi}\,\partial_{\beta}\mathcal{A}^{\alpha\beta}{}_{\alpha} - 2\,a_{0}\,h_{\alpha\chi}\,\partial_{\beta}\mathcal{A}^{\alpha\beta\chi} + 2\,a_{0}\,h_{\beta\chi}\,\partial^{\chi}\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta}\right)\right)[t, x, y, z]\,dz\,dy\,dx\,dt$$

# Wave operator

| | $0^+_{\cdot}h^{\perp}$ | $0^+_{\cdot}h^{\parallel}$ | $0^+_{\cdot}\mathcal{A}_a{}^{\parallel}$ | $0^+_{\cdot}\mathcal{A}_s{}^{\perp t}$ | $0^+_{\cdot}\mathcal{A}_s{}^{\parallel}$ | $0^+_{\cdot}\mathcal{A}_s{}^{\perp h}$ | $0^-_{\cdot}\mathcal{A}_a{}^{\parallel}$ |
|---|---|---|---|---|---|---|---|
| $0^+_{\cdot}h^{\perp}\,\dagger$ | $0$ | $0$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{4}$ | $-\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $0$ |
| $0^+_{\cdot}h^{\parallel}\,\dagger$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{2\sqrt{2}}$ | $0$ | $-\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ |
| $0^+_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger$ | $0$ | $-\frac{i\,a_{0}\,k}{2\sqrt{2}}$ | $-\frac{a_{0}}{2}$ | $0$ | $0$ | $0$ | $0$ |
| $0^+_{\cdot}\mathcal{A}_s{}^{\perp t}\,\dagger$ | $0$ | $0$ | $0$ | $0$ | $\frac{a_{0}}{2}$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $0$ |
| $0^+_{\cdot}\mathcal{A}_s{}^{\parallel}\,\dagger$ | $-\frac{1}{4}\,i\,a_{0}\,k$ | $\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $0$ | $\frac{a_{0}}{2}$ | $0$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $0$ |
| $0^+_{\cdot}\mathcal{A}_s{}^{\perp h}\,\dagger$ | $\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $-\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $\frac{a_{0}}{2}$ | $0$ |
| $0^-_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $-\frac{a_{0}}{2}$ |

| | $1^+_{\cdot}\mathcal{A}_a{}^{\parallel}{}_{\alpha\beta}$ | $1^+_{\cdot}\mathcal{A}_a{}^{\perp}{}_{\alpha\beta}$ | $1^+_{\cdot}\mathcal{A}_s{}^{\perp}{}_{\alpha\beta}$ | $1^-_{\cdot}h^{\perp}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_a{}^{\parallel}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_a{}^{\perp}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_s{}^{\perp t}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_s{}^{\parallel t}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_s{}^{\perp h}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{A}_s{}^{\parallel h}{}_{\alpha}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| $1^+_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger^{\alpha\beta}$ | $-\frac{a_{0}}{4}$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^+_{\cdot}\mathcal{A}_a{}^{\perp}\,\dagger^{\alpha\beta}$ | $-\frac{a_{0}}{2\sqrt{2}}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^+_{\cdot}\mathcal{A}_s{}^{\perp}\,\dagger^{\alpha\beta}$ | $0$ | $0$ | $\frac{a_{0}}{4}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^-_{\cdot}h^{\perp}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $0$ | $-\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $\frac{1}{4}\,i\,\sqrt{\frac{5}{6}}\,a_{0}\,k$ | $-\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $-\frac{i\,a_{0}\,k}{4\sqrt{6}}$ |
| $1^-_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $-\frac{a_{0}}{4}$ | $\frac{a_{0}}{2\sqrt{2}}$ | $0$ | $0$ | $0$ | $0$ |
| $1^-_{\cdot}\mathcal{A}_a{}^{\perp}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $0$ | $\frac{a_{0}}{2\sqrt{2}}$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^-_{\cdot}\mathcal{A}_s{}^{\perp t}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ | $0$ | $-\frac{a_{0}}{3}$ | $\frac{\sqrt{5}\,a_{0}}{6}$ | $-\frac{a_{0}}{6\sqrt{2}}$ | $-\frac{a_{0}}{6}$ |
| $1^-_{\cdot}\mathcal{A}_s{}^{\parallel t}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{1}{4}\,i\,\sqrt{\frac{5}{6}}\,a_{0}\,k$ | $0$ | $0$ | $\frac{\sqrt{5}\,a_{0}}{6}$ | $\frac{a_{0}}{3}$ | $-\frac{1}{6}\,\sqrt{\frac{5}{2}}\,a_{0}$ | $-\frac{\sqrt{5}\,a_{0}}{6}$ |
| $1^-_{\cdot}\mathcal{A}_s{}^{\perp h}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $0$ | $0$ | $-\frac{a_{0}}{6\sqrt{2}}$ | $-\frac{1}{6}\,\sqrt{\frac{5}{2}}\,a_{0}$ | $\frac{a_{0}}{3}$ | $\frac{a_{0}}{6\sqrt{2}}$ |
| $1^-_{\cdot}\mathcal{A}_s{}^{\parallel h}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ | $0$ | $-\frac{a_{0}}{6}$ | $-\frac{\sqrt{5}\,a_{0}}{6}$ | $\frac{a_{0}}{6\sqrt{2}}$ | $\frac{5\,a_{0}}{12}$ |

| | $2^+_{\cdot}h^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{A}_a{}^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{A}_s{}^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{A}_s{}^{\perp}{}_{\alpha\beta}$ | $2^-_{\cdot}\mathcal{A}_a{}^{\parallel}{}_{\alpha\beta\chi}$ | $2^-_{\cdot}\mathcal{A}_s{}^{\parallel}{}_{\alpha\beta\chi}$ |
|---|---|---|---|---|---|---|
| $2^+_{\cdot}h^{\parallel}\,\dagger^{\alpha\beta}$ | $0$ | $-\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $-\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger^{\alpha\beta}$ | $\frac{i\,a_{0}\,k}{4\sqrt{2}}$ | $\frac{a_{0}}{4}$ | $0$ | $0$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{A}_s{}^{\parallel}\,\dagger^{\alpha\beta}$ | $\frac{i\,a_{0}\,k}{4\sqrt{3}}$ | $0$ | $-\frac{a_{0}}{2}$ | $0$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{A}_s{}^{\perp}\,\dagger^{\alpha\beta}$ | $-\frac{i\,a_{0}\,k}{4\sqrt{6}}$ | $0$ | $0$ | $\frac{a_{0}}{4}$ | $0$ | $0$ |
| $2^-_{\cdot}\mathcal{A}_a{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $0$ | $0$ | $0$ | $0$ | $\frac{a_{0}}{4}$ | $0$ |
| $2^-_{\cdot}\mathcal{A}_s{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $\frac{a_{0}}{4}$ |

| | $3^-_{\cdot}\mathcal{A}_s{}^{\parallel}{}_{\alpha\beta\chi}$ |
|---|---|
| $3^-_{\cdot}\mathcal{A}_s{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $-\frac{a_{0}}{2}$ |

# Saturated propagator

| | $0^+_{\cdot}\mathcal{T}^{\perp}$ | $0^+_{\cdot}\mathcal{T}^{\parallel}$ | $0^+_{\cdot}\mathcal{W}_a{}^{\parallel}$ | $0^+_{\cdot}\mathcal{W}_s{}^{\perp t}$ | $0^+_{\cdot}\mathcal{W}_s{}^{\parallel}$ | $0^+_{\cdot}\mathcal{W}_s{}^{\perp h}$ | $0^-_{\cdot}\mathcal{W}_a{}^{\parallel}$ |
|---|---|---|---|---|---|---|---|
| $0^+_{\cdot}\mathcal{T}^{\perp}\,\dagger$ | $-\frac{36\,k^2}{a_{0}\,(16+3\,k^2)^2}$ | $\frac{4\,\sqrt{3}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $\frac{2\,i\,\sqrt{6}\,k}{16\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{72\,i\,k}{a_{0}\,(16+3\,k^2)^2}$ | $\frac{8\,i\,k\,(19+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $-\frac{4\,i\,\sqrt{2}\,k\,(10+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $0$ |
| $0^+_{\cdot}\mathcal{T}^{\parallel}\,\dagger$ | $\frac{4\,\sqrt{3}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $\frac{4}{a_{0}\,k^2}$ | $\frac{2\,i\,\sqrt{2}}{a_{0}\,k}$ | $\frac{8\,i\,\sqrt{3}}{16\,a_{0}\,k+3\,a_{0}\,k^3}$ | $-\frac{8\,i}{\sqrt{3}\,\left(16\,a_{0}\,k+3\,a_{0}\,k^3\right)}$ | $-\frac{8\,i\,\sqrt{\frac{2}{3}}}{16\,a_{0}\,k+3\,a_{0}\,k^3}$ | $0$ |
| $0^+_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger$ | $-\frac{2\,i\,\sqrt{6}\,k}{16\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{2\,i\,\sqrt{2}}{a_{0}\,k}$ | $0$ | $\frac{4\,\sqrt{6}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{4\,\sqrt{\frac{2}{3}}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{8}{\sqrt{3}\,\left(16\,a_{0}+3\,a_{0}\,k^2\right)}$ | $0$ |
| $0^+_{\cdot}\mathcal{W}_s{}^{\perp t}\,\dagger$ | $\frac{72\,i\,k}{a_{0}\,(16+3\,k^2)^2}$ | $-\frac{8\,i\,\sqrt{3}}{16\,a_{0}\,k+3\,a_{0}\,k^3}$ | $\frac{4\,\sqrt{6}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{144}{a_{0}\,(16+3\,k^2)^2}$ | $\frac{16\,(19+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $-\frac{8\,\sqrt{2}\,(10+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $0$ |
| $0^+_{\cdot}\mathcal{W}_s{}^{\parallel}\,\dagger$ | $-\frac{8\,i\,k\,(19+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $\frac{8\,i}{\sqrt{3}\,\left(16\,a_{0}\,k+3\,a_{0}\,k^3\right)}$ | $-\frac{4\,\sqrt{\frac{2}{3}}}{16\,a_{0}+3\,a_{0}\,k^2}$ | $\frac{16\,(19+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $-\frac{16\,(35+6\,k^2)}{3\,a_{0}\,(16+3\,k^2)^2}$ | $-\frac{8\,\sqrt{2}\,(22+3\,k^2)}{3\,a_{0}\,(16+3\,k^2)^2}$ | $0$ |
| $0^+_{\cdot}\mathcal{W}_s{}^{\perp h}\,\dagger$ | $\frac{4\,i\,\sqrt{2}\,k\,(10+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $\frac{8\,i\,\sqrt{\frac{2}{3}}}{16\,a_{0}\,k+3\,a_{0}\,k^3}$ | $-\frac{8}{\sqrt{3}\,\left(16\,a_{0}+3\,a_{0}\,k^2\right)}$ | $-\frac{8\,\sqrt{2}\,(10+3\,k^2)}{a_{0}\,(16+3\,k^2)^2}$ | $-\frac{8\,\sqrt{2}\,(22+3\,k^2)}{3\,a_{0}\,(16+3\,k^2)^2}$ | $\frac{32\,(13+3\,k^2)}{3\,a_{0}\,(16+3\,k^2)^2}$ | $0$ |
| $0^-_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $-\frac{2}{a_{0}}$ |

| | $1^+_{\cdot}\mathcal{W}_a{}^{\parallel}{}_{\alpha\beta}$ | $1^+_{\cdot}\mathcal{W}_a{}^{\perp}{}_{\alpha\beta}$ | $1^+_{\cdot}\mathcal{W}_s{}^{\perp}{}_{\alpha\beta}$ | $1^-_{\cdot}\mathcal{T}^{\perp}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_a{}^{\parallel}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_a{}^{\perp}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_s{}^{\perp t}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_s{}^{\parallel t}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_s{}^{\perp h}{}_{\alpha}$ | $1^-_{\cdot}\mathcal{W}_s{}^{\parallel h}{}_{\alpha}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| $1^+_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger^{\alpha\beta}$ | $0$ | $-\frac{2\,\sqrt{2}}{a_{0}}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^+_{\cdot}\mathcal{W}_a{}^{\perp}\,\dagger^{\alpha\beta}$ | $-\frac{2\,\sqrt{2}}{a_{0}}$ | $\frac{2}{a_{0}}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^+_{\cdot}\mathcal{W}_s{}^{\perp}\,\dagger^{\alpha\beta}$ | $0$ | $0$ | $\frac{4}{a_{0}}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ | $0$ |
| $1^-_{\cdot}\mathcal{T}^{\perp}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{2\,k^2}{a_{0}\,(2+k^2)^2}$ | $\frac{2\,i\,\sqrt{2}\,k}{a_{0}\,(2+k^2)}$ | $\frac{i\,k\,(4+k^2)}{a_{0}\,(2+k^2)^2}$ | $-\frac{i\,k\,(6+5\,k^2)}{\sqrt{6}\,a_{0}\,(2+k^2)^2}$ | $\frac{i\,\sqrt{\frac{5}{6}}\,k}{a_{0}\,(2+k^2)}$ | $-\frac{2\,i\,k\,(3+k^2)}{\sqrt{3}\,a_{0}\,(2+k^2)^2}$ | $\frac{i\,\sqrt{\frac{2}{3}}\,k}{a_{0}\,(2+k^2)}$ |
| $1^-_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{2\,i\,\sqrt{2}\,k}{a_{0}\,(2+k^2)}$ | $0$ | $\frac{\sqrt{2}\,(4+k^2)}{a_{0}\,(2+k^2)}$ | $-\frac{2\,k^2}{\sqrt{3}\,a_{0}\,(2+k^2)}$ | $0$ | $\frac{\sqrt{\frac{2}{3}}\,k^2}{a_{0}\,(2+k^2)}$ | $0$ |
| $1^-_{\cdot}\mathcal{W}_a{}^{\perp}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{i\,k\,(4+k^2)}{a_{0}\,(2+k^2)^2}$ | $\frac{\sqrt{2}\,(4+k^2)}{a_{0}\,(2+k^2)}$ | $\frac{(4+k^2)^2}{2\,a_{0}\,(2+k^2)^2}$ | $\frac{k^2\,(-2+k^2)}{2\,\sqrt{6}\,a_{0}\,(2+k^2)^2}$ | $-\frac{\sqrt{\frac{5}{6}}\,k^2}{4\,a_{0}+2\,a_{0}\,k^2}$ | $\frac{k^2\,(5+2\,k^2)}{\sqrt{3}\,a_{0}\,(2+k^2)^2}$ | $-\frac{k^2}{\sqrt{6}\,a_{0}\,(2+k^2)}$ |
| $1^-_{\cdot}\mathcal{W}_s{}^{\perp t}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{i\,k\,(6+5\,k^2)}{\sqrt{6}\,a_{0}\,(2+k^2)^2}$ | $-\frac{2\,k^2}{\sqrt{3}\,a_{0}\,(2+k^2)}$ | $\frac{k^2\,(-2+k^2)}{2\,\sqrt{6}\,a_{0}\,(2+k^2)^2}$ | $-\frac{76+52\,k^2+3\,k^4}{12\,a_{0}\,(2+k^2)^2}$ | $\frac{\sqrt{5}\,(10+3\,k^2)}{12\,a_{0}\,(2+k^2)}$ | $\frac{-2+k^2}{3\,\sqrt{2}\,a_{0}\,(2+k^2)^2}$ | $\frac{1}{-2\,a_{0}-\frac{8\,a_{0}}{2+3\,k^2}}$ |
| $1^-_{\cdot}\mathcal{W}_s{}^{\parallel t}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{i\,\sqrt{\frac{5}{6}}\,k}{a_{0}\,(2+k^2)}$ | $0$ | $-\frac{\sqrt{\frac{5}{6}}\,k^2}{4\,a_{0}+2\,a_{0}\,k^2}$ | $\frac{\sqrt{5}\,(10+3\,k^2)}{12\,a_{0}\,(2+k^2)}$ | $\frac{1}{12\,a_{0}}$ | $-\frac{\sqrt{\frac{5}{2}}}{6\,a_{0}+3\,a_{0}\,k^2}$ | $-\frac{\sqrt{5}}{6\,a_{0}}$ |
| $1^-_{\cdot}\mathcal{W}_s{}^{\perp h}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $\frac{2\,i\,k\,(3+k^2)}{\sqrt{3}\,a_{0}\,(2+k^2)^2}$ | $\frac{\sqrt{\frac{2}{3}}\,k^2}{a_{0}\,(2+k^2)}$ | $\frac{k^2\,(5+2\,k^2)}{\sqrt{3}\,a_{0}\,(2+k^2)^2}$ | $\frac{-2+k^2}{3\,\sqrt{2}\,a_{0}\,(2+k^2)^2}$ | $-\frac{\sqrt{\frac{5}{2}}}{6\,a_{0}+3\,a_{0}\,k^2}$ | $\frac{2\,(17+14\,k^2+3\,k^4)}{3\,a_{0}\,(2+k^2)^2}$ | $-\frac{\sqrt{2}\,(7+3\,k^2)}{3\,a_{0}\,(2+k^2)}$ |
| $1^-_{\cdot}\mathcal{W}_s{}^{\parallel h}\,\dagger^{\alpha}$ | $0$ | $0$ | $0$ | $-\frac{i\,\sqrt{\frac{2}{3}}\,k}{2\,a_{0}+a_{0}\,k^2}$ | $0$ | $-\frac{k^2}{\sqrt{6}\,a_{0}\,(2+k^2)}$ | $\frac{1}{-2\,a_{0}-\frac{8\,a_{0}}{2+3\,k^2}}$ | $-\frac{\sqrt{5}}{6\,a_{0}}$ | $-\frac{\sqrt{2}\,(7+3\,k^2)}{3\,a_{0}\,(2+k^2)}$ | $\frac{5}{3\,a_{0}}$ |

| | $2^+_{\cdot}\mathcal{T}^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{W}_a{}^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{W}_s{}^{\parallel}{}_{\alpha\beta}$ | $2^+_{\cdot}\mathcal{W}_s{}^{\perp}{}_{\alpha\beta}$ | $2^-_{\cdot}\mathcal{W}_a{}^{\parallel}{}_{\alpha\beta\chi}$ | $2^-_{\cdot}\mathcal{W}_s{}^{\parallel}{}_{\alpha\beta\chi}$ |
|---|---|---|---|---|---|---|
| $2^+_{\cdot}\mathcal{T}^{\parallel}\,\dagger^{\alpha\beta}$ | $-\frac{8}{a_{0}\,k^2}$ | $-\frac{4\,i\,\sqrt{2}}{a_{0}\,k}$ | $\frac{4\,i}{\sqrt{3}\,a_{0}\,k}$ | $\frac{4\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger^{\alpha\beta}$ | $\frac{4\,i\,\sqrt{2}}{a_{0}\,k}$ | $0$ | $\frac{2\,\sqrt{\frac{2}{3}}}{a_{0}}$ | $\frac{4}{\sqrt{3}\,a_{0}}$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{W}_s{}^{\parallel}\,\dagger^{\alpha\beta}$ | $-\frac{4\,i}{\sqrt{3}\,a_{0}\,k}$ | $\frac{2\,\sqrt{\frac{2}{3}}}{a_{0}}$ | $-\frac{8}{3\,a_{0}}$ | $-\frac{2\,\sqrt{2}}{3\,a_{0}}$ | $0$ | $0$ |
| $2^+_{\cdot}\mathcal{W}_s{}^{\perp}\,\dagger^{\alpha\beta}$ | $-\frac{4\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$ | $\frac{4}{\sqrt{3}\,a_{0}}$ | $-\frac{2\,\sqrt{2}}{3\,a_{0}}$ | $\frac{8}{3\,a_{0}}$ | $0$ | $0$ |
| $2^-_{\cdot}\mathcal{W}_a{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $0$ | $0$ | $0$ | $0$ | $\frac{4}{a_{0}}$ | $0$ |
| $2^-_{\cdot}\mathcal{W}_s{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $0$ | $0$ | $0$ | $0$ | $0$ | $\frac{4}{a_{0}}$ |

| | $3^-_{\cdot}\mathcal{W}_s{}^{\parallel}{}_{\alpha\beta\chi}$ |
|---|---|
| $3^-_{\cdot}\mathcal{W}_s{}^{\parallel}\,\dagger^{\alpha\beta\chi}$ | $-\frac{2}{a_{0}}$ |

# Source constraints

| Spin-parity form | Covariant form | Multiplicities |
|---|---|---|
| $k\,{}^{0^+_{\cdot}}\mathcal{W}_s{}^{\parallel} + 2\,k\,{}^{0^+_{\cdot}}\mathcal{W}_s{}^{\perp h} - 6\,i\,{}^{0^+_{\cdot}}\mathcal{T}^{\perp} == 0$ | $2\,\partial_{\beta}\partial_{\alpha}\mathcal{T}^{\alpha\beta} + \partial_{\chi}\partial^{\chi}\partial_{\alpha}\mathcal{W}^{\alpha\beta}{}_{\beta} == \partial_{\chi}\partial_{\beta}\partial_{\alpha}\mathcal{W}^{\alpha\beta\chi}$ | 1 |
| $k\,{}^{0^+_{\cdot}}\mathcal{W}_s{}^{\perp t} + 2\,i\,{}^{0^+_{\cdot}}\mathcal{T}^{\perp} == 0$ | $2\,\partial_{\beta}\partial_{\alpha}\mathcal{T}^{\alpha\beta} == \partial_{\chi}\partial_{\beta}\partial_{\alpha}\mathcal{W}^{\alpha\beta\chi}$ | 1 |
| $6\,k\,{}^{1^-_{\cdot}}\mathcal{W}_a{}^{\perp\,\alpha} + 2\,k\,{}^{1^-_{\cdot}}\mathcal{W}_s{}^{\parallel h\,\alpha} + k\,{}^{1^-_{\cdot}}\mathcal{W}_s{}^{\parallel t\,\alpha} + 3\,k\,{}^{1^-_{\cdot}}\mathcal{W}_s{}^{\perp t\,\alpha} + 12\,i\,{}^{1^-_{\cdot}}\mathcal{T}^{\perp\,\alpha} == 0$ | $4\,\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{T}^{\beta\chi} + 2\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\mathcal{W}^{\beta\alpha\chi} + \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\mathcal{W}^{\alpha\beta}{}_{\beta} == 4\,\partial_{\chi}\partial^{\chi}\partial_{\beta}\mathcal{T}^{\alpha\beta} + 2\,\partial_{\delta}\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{W}^{\beta\chi\delta} + \partial_{\delta}\partial^{\delta}\partial_{\beta}\partial^{\alpha}\mathcal{W}^{\beta\chi}{}_{\chi}$ | 3 |
| $k\,{}^{1^-_{\cdot}}\mathcal{W}_s{}^{\perp h\,\alpha} - 6\,i\,{}^{1^-_{\cdot}}\mathcal{T}^{\perp\,\alpha} == k\left(3\,{}^{1^-_{\cdot}}\mathcal{W}_a{}^{\perp\,\alpha} + {}^{1^-_{\cdot}}\mathcal{W}_s{}^{\perp t\,\alpha}\right)$ | $2\,\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{T}^{\beta\chi} + \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\mathcal{W}^{\beta\alpha\chi} == 2\,\partial_{\chi}\partial^{\chi}\partial_{\beta}\mathcal{T}^{\alpha\beta} + \partial_{\delta}\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{W}^{\beta\chi\delta}$ | 3 |
| Total expected gauge generators: | | 8 |

# Massive spectrum

(There are no massive particles)

# Massless spectrum




Massless particle

| | |
|---|---|
| Pole residue: | $-\frac{p^2}{a_{0}} > 0$ |
| Polarisations: | 2 |

# Gauge symmetries

(Not yet implemented in PSALTer)

# Unitarity conditions

$a_{0} < 0$

# Validity assumptions

(Not yet implemented in PSALTer)