

## Wave operator and propagator

	$\Gamma_{0^+}^{\#1}$	$\Gamma_{0^+}^{\#2}$	$\Gamma_{0^+}^{\#3}$	$\Gamma_{0^+}^{\#4}$	$h_{0^+}^{\#1}$	$h_{0^+}^{\#2}$	$\Gamma_{0^+}^{\#1}$
$\Gamma_{0^+}^{\#1} \uparrow$	$\frac{1}{2}(-a_0 + 25 a_1 k^2)$	0	$10 \sqrt{\frac{2}{3}} a_1 k^2$	$-\frac{10 a_1 k^2}{\sqrt{3}}$	$-\frac{25 a_1 k^3}{2 \sqrt{2}}$	0	0
$\Gamma_{0^+}^{\#2} \uparrow$	0	0	$\frac{a_0}{2}$	$-\frac{a_0}{2 \sqrt{2}}$	0	0	0
$\Gamma_{0^+}^{\#3} \uparrow$	$10 \sqrt{\frac{2}{3}} a_1 k^2$	$\frac{a_0}{2}$	$\frac{23 a_1 k^2}{3}$	$-\frac{3 a_0 + 46 a_1 k^2}{6 \sqrt{2}}$	$-\frac{10 a_1 k^3}{\sqrt{3}}$	0	0
$\Gamma_{0^+}^{\#4} \uparrow$	$-\frac{10 a_1 k^2}{\sqrt{3}}$	$-\frac{a_0}{2 \sqrt{2}}$	$-\frac{3 a_0 + 46 a_1 k^2}{6 \sqrt{2}}$	$\frac{1}{6}(3 a_0 + 23 a_1 k^2)$	$5 i \sqrt{\frac{2}{3}} a_1 k^3$	0	0
$h_{0^+}^{\#1} \uparrow$	$\frac{25 a_1 k^3}{2 \sqrt{2}}$	0	$\frac{10 i a_1 k^3}{\sqrt{3}}$	$-5 i \sqrt{\frac{2}{3}} a_1 k^3$	$\frac{1}{4} k^2 (a_0 + 25 a_1 k^2)$	0	0
$h_{0^+}^{\#2} \uparrow$	0	0	0	0	0	0	0
$\Gamma_{0^+}^{\#1} \downarrow$	0	0	0	0	0	0	$\frac{1}{2}(-a_0 + a_1 k^2)$

Source constraints		
SO(3) irreps	Fundamental fields	Multiplicities
$\mathcal{T}_{0^+}^{\#2} = 0$	$\partial_\beta \partial_\alpha \mathcal{T}^{\alpha\beta} = 0$	1
$\Delta_{0^+}^{\#3} + 2\Delta_{0^+}^{\#4} + 3\Delta_{0^+}^{\#2} = 0$	$\partial_\alpha \Delta^{\alpha\beta}_\beta = 0$	1
$\mathcal{T}_1^{\#1\alpha} = 0$	$\partial_\chi \partial_\beta \partial^\alpha \mathcal{T}^{\beta\chi} = \partial_\chi \partial^\chi \partial_\beta \mathcal{T}^{\alpha\beta}$	3
$2\Delta_1^{\#6\alpha} + \Delta_1^{\#4\alpha} + 2\Delta_1^{\#5\alpha} + \Delta_1^{\#3\alpha} = 0$	$\partial_\beta \partial^\alpha \Delta^{\beta\chi}_\chi = \partial_\chi \partial^\chi \Delta^{\alpha\beta}_\beta$	3
Total constraints/gauge generators:		8

# Massive and massless spectra

## Unitarity conditions

$$\begin{array}{c} \Delta_{3^-}^{\#1} \alpha \beta \chi \\ \Delta_{3^-}^{\#1} \dagger \alpha \beta \chi \quad \boxed{-\frac{2}{a_0 + 7 a_1 k^2}} \\ \Gamma_{3^-}^{\#1} \alpha \beta \chi \\ \Gamma_{3^-}^{\#1} \dagger \alpha \beta \chi \quad \boxed{\frac{1}{2} (-a_0 - 7 a_1 k^2)} \end{array}$$

$\frac{1}{4}(a_0 + 11a_1k^2)$	$-5\sqrt{\frac{2}{3}}a_1k^2$	$\frac{5a_1k^2}{\sqrt{3}}$	$-\frac{11a_1k^3}{4\sqrt{2}}$	0	0
$-5\sqrt{\frac{2}{3}}a_1k^2$	$\frac{1}{6}(-3a_0 + a_1k^2)$	$-\frac{a_1k^2}{6\sqrt{2}}$	$\frac{5a_1k^3}{\sqrt{3}}$	0	0
$\frac{5a_1k^2}{\sqrt{3}}$	$-\frac{a_1k^2}{6\sqrt{2}}$	$\frac{1}{12}(3a_0 + a_1k^2)$	$-\frac{5a_1k^3}{\sqrt{6}}$	0	0
$\frac{11a_1k^3}{4\sqrt{2}}$	$-\frac{5a_1k^3}{\sqrt{3}}$	$\frac{5a_1k^3}{\sqrt{6}}$	$-\frac{1}{8}k^2(a_0 - 11a_1k^2)$	0	0
0	0	0	$\frac{1}{4}(a_0 - a_1k^2)$	$\frac{1}{4}(a_0 - 5a_1k^2)$	$\frac{1}{4}(a_0 - 5a_1k^2)$
0	0	0	0	0	$\frac{1}{4}(a_0 - 5a_1k^2)$