

## Wave operator and propagator

	$0^+ h^\perp$	$0^+ h^\parallel$	$0^+ \mathcal{A}_a^\parallel$	$0^+ \mathcal{A}_s^{\perp\perp}$	$0^+ \mathcal{A}_s^\parallel$	$0^+ \mathcal{A}_s^{\perp h}$	$0^+ \mathcal{A}_s^\parallel$
$0^+ h^\perp$	$c_2$	$-\sqrt{3} c_2$	0	0	0	0	0
$0^+ h^\parallel$	$-\sqrt{3} c_2$	$-c_2 + 3 c_1 k^4$	$3 i \sqrt{2} c_1 k^3$	0	0	0	0
$0^+ \mathcal{A}_a^\parallel$	0	$-3 i \sqrt{2} c_1 k^3$	$6 c_1 k^2$	0	0	0	0
$0^+ \mathcal{A}_s^{\perp\perp}$	0	0	0	0	0	0	0
$0^+ \mathcal{A}_s^\parallel$	0	0	0	0	0	0	0
$0^+ \mathcal{A}_s^{\perp h}$	0	0	0	0	0	0	0
$0^+ \mathcal{A}_s^\parallel$	0	0	0	0	0	0	0
${}^3\mathcal{W}_s^{\parallel\alpha\beta\chi}$ ${}^3\mathcal{A}_s^{\parallel\alpha\beta\chi}$							
$\beta\chi$	0	${}^3\mathcal{A}_s^{\parallel\alpha\beta\chi}$	0				
	$0^+ \mathcal{T}^\perp$	$0^+ \mathcal{T}^\parallel$	$0^+ \mathcal{W}_a^\parallel$	$0^+ \mathcal{W}_s^{\perp\perp}$	$0^+ \mathcal{W}_s^\parallel$	$0^+ \mathcal{W}_s^{\perp h}$	$0^+ \mathcal{W}_a^\parallel$
$0^+ \mathcal{T}^\perp$	$\frac{1}{4 c_2}$	$-\frac{\sqrt{3}}{4 c_2}$	$\frac{i \sqrt{2} k}{4 c_2}$	0	0	0	0
$0^+ \mathcal{T}^\parallel$	$-\frac{\sqrt{3}}{4 c_2}$	$-\frac{1}{4 c_2}$	$\frac{i k}{4 \sqrt{2} c_2}$	0	0	0	0
$0^+ \mathcal{W}_a^\parallel$	$\frac{i \sqrt{2} k}{4 c_2}$	$\frac{i k}{4 \sqrt{2} c_2}$	$\frac{1}{6 c_1 k^2} - \frac{k^2}{8 c_2}$	0	0	0	0
$0^+ \mathcal{W}_s^{\perp\perp}$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_s^\parallel$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_s^{\perp h}$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_a^\parallel$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_s^{\perp\perp}$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_s^\parallel$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_s^{\perp h}$	0	0	0	0	0	0	0
$0^+ \mathcal{W}_a^\parallel$	0	0	0	0	0	0	0

## Unitarity conditions

True