

$$\mathcal{A}_i^j = 0$$

$$\overline{\mathcal{A}_Q^J} \overline{\mathcal{A}_I^P} = \overline{\mathcal{A}_Q^{N-L}} \overline{\mathcal{A}_{N-L}^P}$$

$$\overline{\mathcal{A}_Q^J} \underbrace{\sum_I \overline{\mathcal{A}_I^P}}_{=\delta(\mathcal{A})^\alpha} = \overline{\mathcal{A}_{N-L}^P} \underbrace{\sum_I \overline{\mathcal{A}_Q^{N-L}}}_{=\delta(\mathcal{A})^\alpha}$$

$$\overline{\mathcal{A}_Q^J} \delta(\mathcal{A}) = \overline{\mathcal{A}_{N-L}^P} \delta(\mathcal{A})$$

$$\underbrace{-\mathcal{A}_1^m}_{\mathcal{A}} \ddot{\mathcal{A}} \underbrace{-\mathcal{A}_q^m}_{\mathcal{A}} = \underbrace{\mathcal{A}_1^m}_{\mathcal{A}} \ddot{\mathcal{A}} \underbrace{\mathcal{A}_q^m}_{\mathcal{A}} = \sum_{j_1 < \dots < j_q} j_1 \mathcal{A} \ddot{\mathcal{A}} j_q \mathcal{A} \overline{\mathcal{A}_Q^J} = \sum_J J \mathcal{A} \overline{\mathcal{A}_Q^J}$$

$$-\mathcal{A}_j^m \mathcal{A}_m^i + \mathcal{A}_j^m \mathcal{A}_{-m}^i = 0$$

$$-\mathcal{A}_j^m \mathcal{A}_m^i \partial_{\mathcal{A}^i} + \mathcal{A}_j^m \mathcal{A}_{-m}^i \partial_{\mathcal{A}^i} = 0$$

$$\mathcal{A}_m = \mathcal{A}_m^i \partial_{\mathcal{A}^i}$$

$$\mathcal{A}_m = -\mathcal{A}_{-m}^i \partial_{\mathcal{A}^i}$$

$$-\mathcal{A}_j^m \mathcal{A}_m + \mathcal{A}_j^m \mathcal{A}_{-m} = 0$$

$$\overline{\mathcal{A}_1^1 \mid \cdot \mid \mathcal{A}_1^P \mid -\mathcal{A}_1^i \partial_{\mathcal{A}^i} \mid \cdot \mid -\mathcal{A}_1^i \partial_{\mathcal{A}^i}} = \frac{\begin{array}{c|c|c|c|c} \mathcal{A}_1^1 & \cdot & \mathcal{A}_1^P & -\mathcal{A}_1^i \partial_{\mathcal{A}^i} & \cdot \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ \mathcal{A}_n^1 & \cdot & \mathcal{A}_n^P & -\mathcal{A}_n^i \partial_{\mathcal{A}^i} & \cdot \end{array}}{\begin{array}{c|c|c|c|c} \mathcal{A}_1^1 & \cdot & \mathcal{A}_1^P & -\mathcal{A}_1^i \partial_{\mathcal{A}^i} & \cdot \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ \mathcal{A}_n^1 & \cdot & \mathcal{A}_n^P & -\mathcal{A}_n^i \partial_{\mathcal{A}^i} & \cdot \end{array}} =$$

$$= \frac{\begin{array}{c|c|c|c|c} \mathcal{A}_1^1 & \cdot & \mathcal{A}_1^P & \mathcal{A}_1 & \cdot \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ \mathcal{A}_n^1 & \cdot & \mathcal{A}_n^P & \mathcal{A}_n & \cdot \end{array}}{\begin{array}{c|c|c|c|c} \mathcal{A}_1^1 & \cdot & \mathcal{A}_1^P & \mathcal{A}_1 & \cdot \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ \mathcal{A}_n^1 & \cdot & \mathcal{A}_n^P & \mathcal{A}_n & \cdot \end{array}} = \sum_I \overline{\mathcal{A}_I^P} \mathcal{A}_{N-L} = \sum_J \overline{\mathcal{A}_{N-L}^P} \mathcal{A}_J$$