

$$+ \mathcal{H}_\infty \left(\mathcal{H}_\infty \left(\mathcal{K}_r^I \right) \right) \ni \mathcal{U}_j = \left(\mathcal{U}_j^i \right)$$

$$\mathcal{H}_\infty \left(\mathcal{H}_\infty \left(\mathcal{K}^I \right) \right) \ni \mathcal{U}_j^i$$

$$\overline{1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}_j} = \left(\overline{1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_j$$

$$\mathcal{U}_j^i \mathcal{X} \mathcal{U}_k^j = \mathcal{U}_j^i \mathcal{X} \mathcal{U}_k^j - \mathcal{U}_k^j \mathcal{X} \mathcal{U}_j^i = \mathcal{U}_j^i \mathcal{X} \mathcal{U}_k^j - (-1)^{pq} \mathcal{U}_j^i \mathcal{X} \mathcal{U}_k^j$$

$$\mathcal{U} \mathcal{X} \mathcal{U} = \mathcal{U} \mathcal{X} \mathcal{U} - (-1)^{pq} \mathcal{U} \mathcal{X} \mathcal{U}.$$

$$\overline{1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U} \mathcal{X} \mathcal{U}}_k = \left(\overline{1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U} \mathcal{X} \mathcal{U}} \right)_k = \sum_{\sigma} (-1)^{\sigma} \left(\overline{\sigma_1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right) \times \left(\overline{\sigma_{p+1} \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_k =$$

$$\sum_{\sigma} (-1)^{\sigma} \left(\overline{\sigma_1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_j \left(\overline{\sigma_{p+1} \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_k - \left(\overline{\sigma_{p+1} \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_j \left(\overline{\sigma_1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \right)_k =$$

$$\sum_{\sigma} (-1)^{\sigma} \overline{\sigma_1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}}_j^i \overline{\sigma_{p+1} \mathcal{L} \dots \mathcal{L}^i \mathcal{U}}_k^j - \overline{\sigma_1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}}_k^i \overline{\sigma_{p+1} \mathcal{L} \dots \mathcal{L}^i \mathcal{U}}_j^i = \overline{1 \mathcal{L} \dots \mathcal{L}^i \mathcal{U}} \left(\mathcal{U}_j^i \mathcal{X} \mathcal{U}_k^j - \mathcal{U}_k^i \mathcal{X} \mathcal{U}_j^i \right)$$

$$\mathcal{U} \mathcal{X} \mathcal{U} + (-1)^{pq} \mathcal{U} \mathcal{X} \mathcal{U} = 0$$