

$$\begin{cases} p:q \mathbb{R}^{p:q} \\ p:q \mathbb{U}^{p:q} \\ p:q \mathbb{C}^{p:q} \\ p:q \mathbb{H}^{p:q} \end{cases} \begin{matrix} \leftarrow \\ \text{exp} \\ \text{herm} \end{matrix} \begin{cases} p:q \mathbb{R}^{p:q} \\ p:q \mathbb{U}^{p:q} \\ p:q \mathbb{C}^{p:q} \\ p:q \mathbb{H}^{p:q} \end{cases}$$

$${}^n_2\mathbb{B}_n^\Omega = \begin{cases} n \mathbb{R}_n^\Omega \\ n \mathbb{C}_n^\Omega \end{cases} \begin{matrix} \leftarrow \\ \text{exp} \\ \text{asymm} \end{matrix} \begin{cases} 2n \mathbb{R}_{2n}^\Omega \\ 2n \mathbb{C}_{2n}^\Omega \end{cases}$$

$$\bar{g}_c = \mathcal{J} g_c \bar{\mathcal{J}}^{-1} = i \mathcal{J} g_c i \mathcal{J}$$

$$\frac{\bar{a} \mid \bar{b}}{-b \mid a} = \frac{0 \mid i}{-i \mid 0} \frac{a \mid b}{-\bar{b} \mid \bar{a}} \frac{0 \mid i}{-i \mid 0} = \frac{0 \mid 1}{-1 \mid 0} \frac{a \mid b}{-\bar{b} \mid \bar{a}} \frac{0 \mid -1}{1 \mid 0}$$

$$\bar{g}_c = j \mathcal{J} g_c j \mathcal{J}$$

$$\frac{0 \mid j}{-j \mid 0} \frac{a \mid b}{c \mid d} \frac{0 \mid j}{-j \mid 0} = \frac{a \mid b}{c \mid d}$$

$${}^n_2\mathbb{R}_n^\Omega \subset {}^n_2\mathbb{C}_n^\Omega \subset {}^n_4\mathbb{R}_n^\Omega \subset {}^n_4\mathbb{C}_n^\Omega$$

$${}^n\mathbb{E}_n^C \subset {}^n\mathbb{F}_n^C \subset {}^n_2\mathbb{E}_n^C \subset {}^n_2\mathbb{F}_n^C$$

$${}^n\mathbb{E}_n^U \subset {}^n\mathbb{F}_n^U \subset {}^n_{1:1}\mathbb{E}_n^U \subset {}^n_{1:1}\mathbb{F}_n^U$$