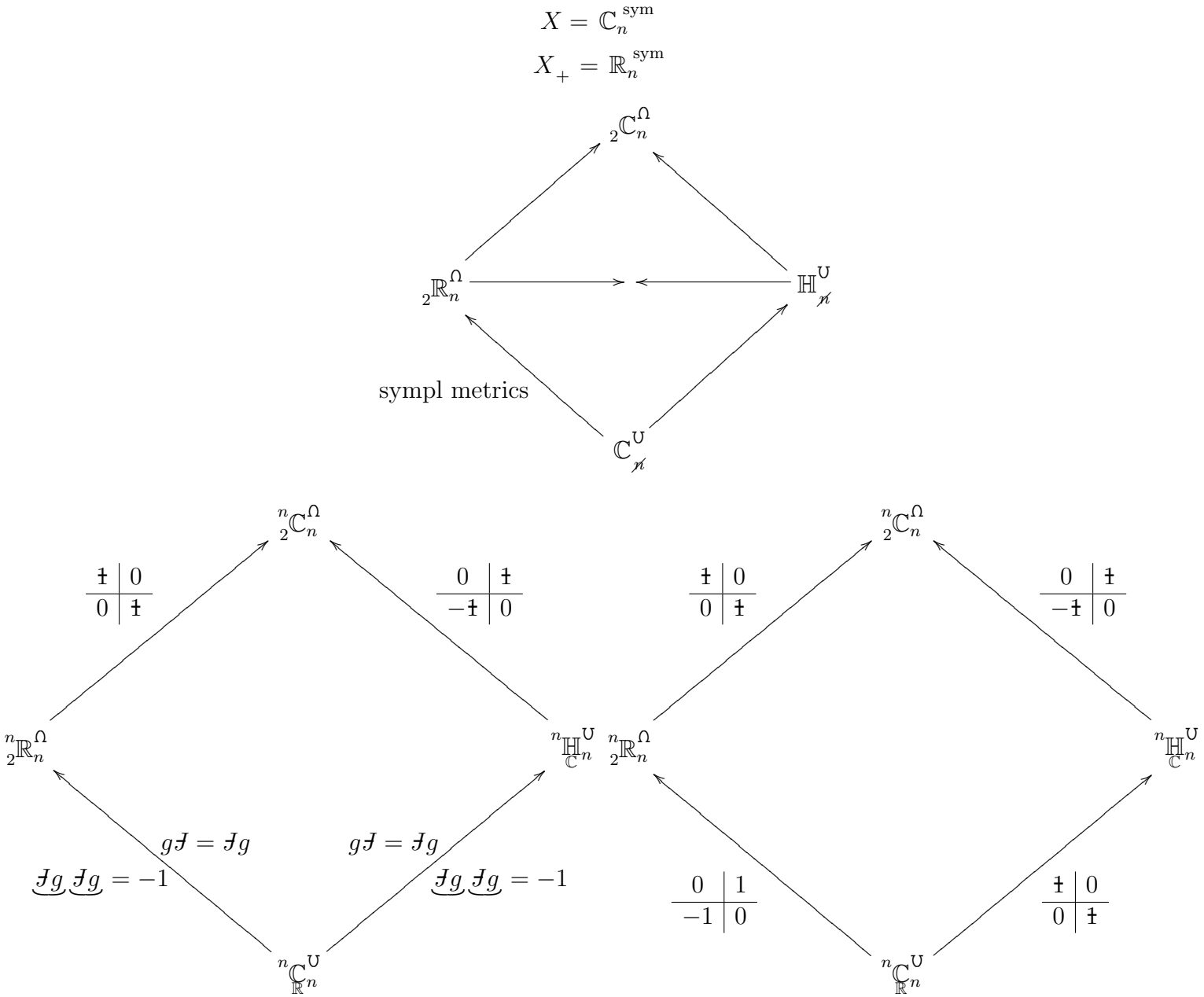
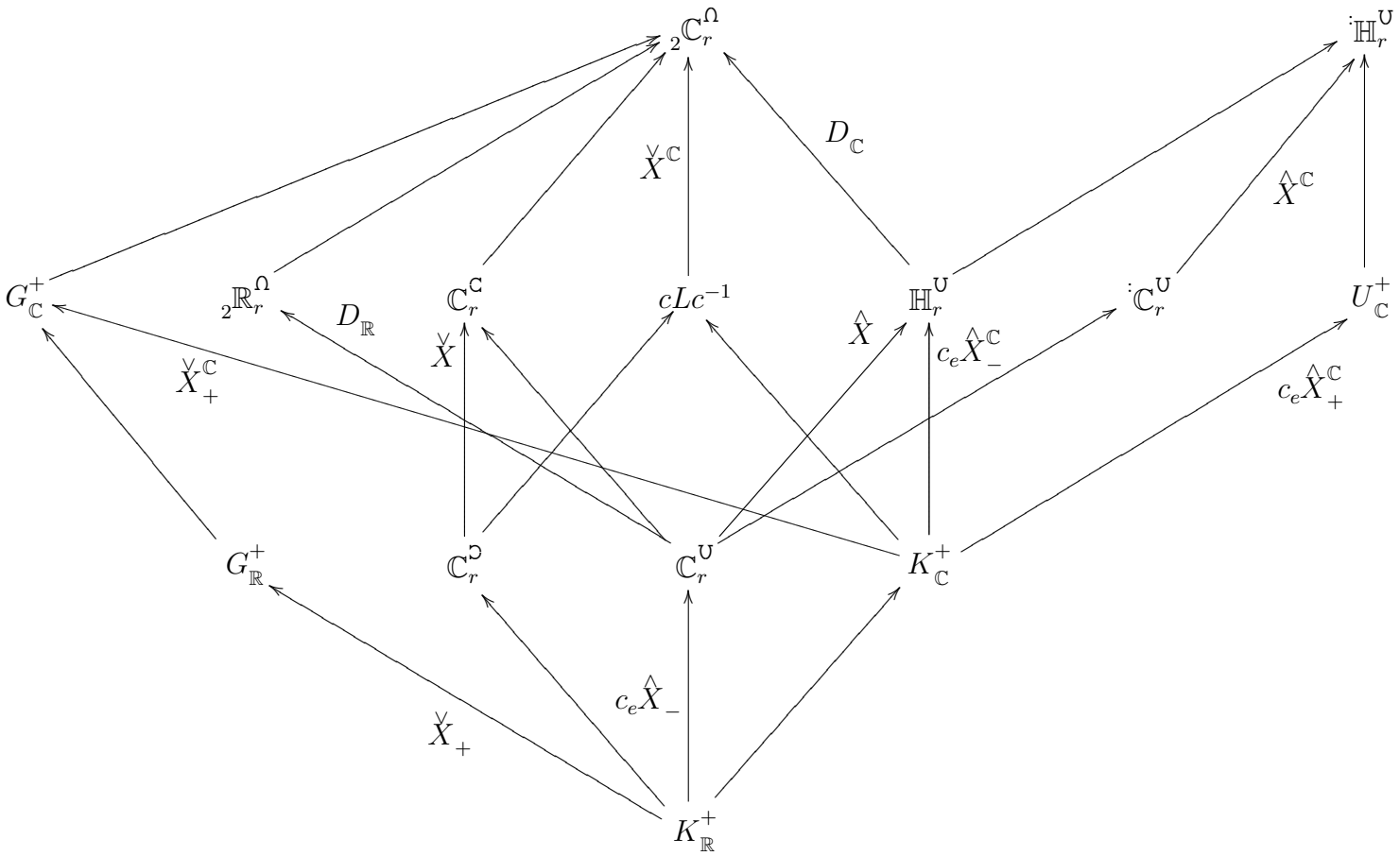

$X = \mathbb{C}_n^{\text{sym}}$
$X_+ = \mathbb{R}_n^{\text{sym}}$
${}_2\mathbb{C}_n^{\Omega}$
${}_2\mathbb{R}_n^{\Omega}$
$\mathbb{H}_{\not n}^{\cup}$
sympl metrics
$\mathbb{C}_{\not n}^{\cup}$
${}^n{}_2\mathbb{C}_n^{\Omega}$
$\begin{array}{c|c} \mathbb{1} & 0 \\ \hline 0 & \mathbb{1} \end{array}$
$\begin{array}{c|c} 0 & \mathbb{1} \\ \hline -\mathbb{1} & 0 \end{array}$
${}^n{}_2\mathbb{R}_n^{\Omega}$
${}^n\mathbb{H}_{\mathbb{C}n}^{\cup}$
$g\mathcal{J} = \mathcal{J}g$
$\underbrace{\mathcal{J}g}\,\underbrace{\mathcal{J}g} = -1$
$g\mathcal{J} = \mathcal{J}g$
$\underbrace{\mathcal{J}g}\,\underbrace{\mathcal{J}g} = -1$
${}^n\mathbb{C}_{\mathbb{R}n}^{\cup}$
${}^n{}_2\mathbb{C}_n^{\Omega}$
$\begin{array}{c|c} \mathbb{1} & 0 \\ \hline 0 & \mathbb{1} \end{array}$
$\begin{array}{c|c} 0 & \mathbb{1} \\ \hline -\mathbb{1} & 0 \end{array}$
${}^n{}_2\mathbb{R}_n^{\Omega}$
${}^n\mathbb{H}_{\mathbb{C}n}^{\cup}$
$\begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array}$
$\begin{array}{c|c} \mathbb{1} & 0 \\ \hline 0 & \mathbb{1} \end{array}$
${}^n\mathbb{C}_{\mathbb{R}n}^{\cup}$




$$ {}^{n}_{2}\mathbb{C}^{\Omega}_{n} \ni \begin{array}{c|c} a & b \\ \hline c & -\overset{+}{a} \end{array} \quad \begin{cases} b = \overset{+}{b} \\ c = \overset{+}{c} \end{cases} $$

$$ {}^{n}_{2}\mathbb{R}^{\Omega}_{n} \ni \begin{array}{c|c} a & b \\ \hline c & -\overset{+}{a} \end{array} \quad \begin{cases} b = \overset{+}{b} \\ c = \overset{+}{c} \end{cases} $$

$$ {}^{n}_{\mathbb{C}}\mathbb{H}^{\cup}_{n} \ni \begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} \quad \begin{cases} a = -\overset{*}{a} \\ b = \overset{+}{b} \end{cases} $$

$$ \begin{array}{c|c} \bar{a} & \bar{b} \\ \hline \bar{c} & -\overset{*}{a} \end{array} = \mathcal{J} \begin{array}{c|c} a & b \\ \hline c & -\overset{+}{a} \end{array} \overset{-1}{\mathcal{J}} = \begin{array}{c|c} -\overset{+}{a} & -c \\ \hline -b & a \end{array} \Leftrightarrow \begin{cases} a = -\overset{*}{a} \\ c = -\bar{b} \end{cases} $$

$$ {}^{n}_{\mathbb{R}}\mathbb{C}^{\cup}_{n} \ni \begin{array}{c|c} a & b \\ \hline -b & a \end{array} \quad \begin{cases} a = -\overset{+}{a} = \bar{a} \\ b = \overset{+}{b} = \bar{b} \end{cases} $$

$$\begin{array}{c|c} a & b \\ \hline c & -\overset{+}{a} \end{array} = \mathit{ȷ} \begin{array}{c|c} a & b \\ \hline c & -\overset{+}{a} \end{array} \overset{-1}{\mathit{ȷ}} = \begin{array}{c|c} -\overset{+}{a} & -c \\ \hline -b & a \end{array} \begin{cases} a = \bar{a} = -\overset{+}{a} \\ b = \bar{b} = \overset{+}{b} \\ c = -b \end{cases}$$

$$\begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} = \mathit{ȷ} \begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} \overset{-1}{\mathit{ȷ}} = \begin{array}{c|c} \bar{a} & \bar{b} \\ \hline -b & a \end{array} \Leftrightarrow \begin{cases} a = \bar{a} = -\overset{+}{a} \\ b = \bar{b} = \overset{+}{b} \end{cases}$$

$$\begin{cases} \overset{*}{g} \mathit{ȷ} g = \mathit{ȷ} \\ g \mathit{ȷ} = \mathit{ȷ} g \end{cases} \Longrightarrow \overset{*}{g}\, g = I$$

$$\begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} \in {}^{n}_{\mathbb{C}}\mathbb{H}^{\cup}_{n} \colon \quad \mathit{ȷ} \begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} = \begin{array}{c|c} a & b \\ \hline -\bar{b} & \bar{a} \end{array} \mathit{ȷ} \Longrightarrow \begin{cases} a = \bar{a} \\ b = \bar{b} \end{cases}$$

$$z = \begin{array}{c|c} a & b \\ \hline c & d \end{array}$$

$$\overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \in {}^{n}_{2}\mathbb{C}^{\Omega}_{n} \Leftrightarrow z \in {}^{n}_{2}\mathbb{C}^{\mathfrak{D}}_{n} \colon \quad z = \overset{+}{z}$$

$$g = \overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \in {}^{n}_{2}\mathbb{C}^{\Omega}_{n} \Leftrightarrow \mathit{ȷ} = g \mathit{ȷ} \overset{+}{g} = \overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \mathit{ȷ} \overbrace{-\mathit{ȷ} + \overset{+}{z}} \overbrace{-\mathit{ȷ} - \overset{+}{z}}^{-1}$$

$$\Leftrightarrow \mathit{ȷ} - z + \overset{+}{z} + z \mathit{ȷ} \overset{+}{z} = \underbrace{\mathit{ȷ} - z} \mathit{ȷ} \underbrace{-\mathit{ȷ} - \overset{+}{z}} = \underbrace{\mathit{ȷ} + z} \mathit{ȷ} \underbrace{\overset{+}{z} - \mathit{ȷ}} = \mathit{ȷ} + z - \overset{+}{z} + z \mathit{ȷ} \overset{+}{z} \Leftrightarrow z = \overset{+}{z}$$

$$\overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \in {}^{n}_{2}\mathbb{R}^{\Omega}_{n} \Leftrightarrow z \in {}^{n}_{2}\mathbb{R}^{\mathbb{U}}_{n} \colon \quad z = \overset{+}{z} = \bar{z}$$

$$\overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \in {}^{n}_{\mathbb{C}}\mathbb{H}^{\cup}_{n} \Leftrightarrow \mathit{ȷ}\, z \in {}^{n}_{\mathbb{C}}\mathbb{H}^{\mathbb{U}}_{n} \colon \quad z = \overset{+}{z} = -\mathit{ȷ}\, \bar{z}\, \mathit{ȷ}$$

$$\overset{-1}{\mathit{ȷ}}\, \bar{g}\, \mathit{ȷ} = \overset{-1}{\mathit{ȷ}}\, \overbrace{\mathit{ȷ} - \bar{z}}^{-1} \underbrace{\mathit{ȷ} + \bar{z}}\, \mathit{ȷ} = \overbrace{\mathit{ȷ} - \bar{z} \mathit{ȷ}}^{-1} \underbrace{\bar{z} \mathit{ȷ} - I} = \overbrace{I + \bar{z} \mathit{ȷ}}^{-1} \underbrace{I - \bar{z} \mathit{ȷ}} = \underbrace{I - \bar{z} \mathit{ȷ}} \overbrace{I + \bar{z} \mathit{ȷ}}^{-1} = g = \overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z}$$

$$\Leftrightarrow \mathit{ȷ} - z - \mathit{ȷ}\, \bar{z}\, \mathit{ȷ} + z \bar{z}\, \mathit{ȷ} = \underbrace{\mathit{ȷ} - z} \underbrace{I - \bar{z} \mathit{ȷ}} = \underbrace{\mathit{ȷ} + z} \underbrace{I + \bar{z} \mathit{ȷ}} = \mathit{ȷ} + z + \mathit{ȷ}\, \bar{z}\, \mathit{ȷ} + z \bar{z}\, \mathit{ȷ} \Leftrightarrow z = -\mathit{ȷ}\, \bar{z}\, \mathit{ȷ}$$

$$z \mathit{ȷ} = -\mathit{ȷ} z \Leftrightarrow z = \begin{array}{c|c} a & b \\ \hline b & -a \end{array} \begin{cases} a = \overset{+}{a} \\ b = \overset{+}{b} \end{cases}$$

$$\overbrace{\mathit{ȷ} - z}^{-1} \underbrace{\mathit{ȷ} + z} \in \frac{{}^{n}_{2}\mathbb{R}^{\Omega}_{n}}{{}^{n}_{\mathbb{C}}\mathbb{C}^{\cup}_{n}} \Leftrightarrow z = \begin{array}{c|c} a & b \\ \hline b & -a \end{array} \begin{cases} a = \overset{+}{a} = \bar{a} \\ b = \overset{+}{b} = \bar{b} \end{cases}$$

$$\overbrace{\mathcal{I}-z}^{-1}\underbrace{\mathcal{I}+z}\in\frac{{}^{n}_{\mathbb{C}}\mathbb{H}^{\cup}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\cup}_{n}}\Leftrightarrow z=\begin{array}{c|c}a & b\\ \hline b & -a\end{array}\begin{cases}a=\overset{+}{a}=-\bar{a}\\ b=\overset{+}{b}=-\bar{b}\end{cases}$$

$$^{n}\mathbb{C}^{\mathfrak{D}}_{n}\longrightarrow\frac{{}^{n}_{2}\mathbb{R}^{\Omega}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\cup}_{n}}$$

$$z\in{}^{n}_{2}\mathbb{C}^{\mathfrak{D}}_{n}\longrightarrow{}^{n}_{2}\mathbb{C}^{\Omega}_{n}\ni\overbrace{\mathcal{I}-z}^{-1}\underbrace{\mathcal{I}+z}$$

$$^{n}\mathbb{C}^{\mathfrak{D}}_{n}\longrightarrow\frac{{}^{n}_{\mathbb{C}}\mathbb{H}^{\cup}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\cup}_{n}}$$