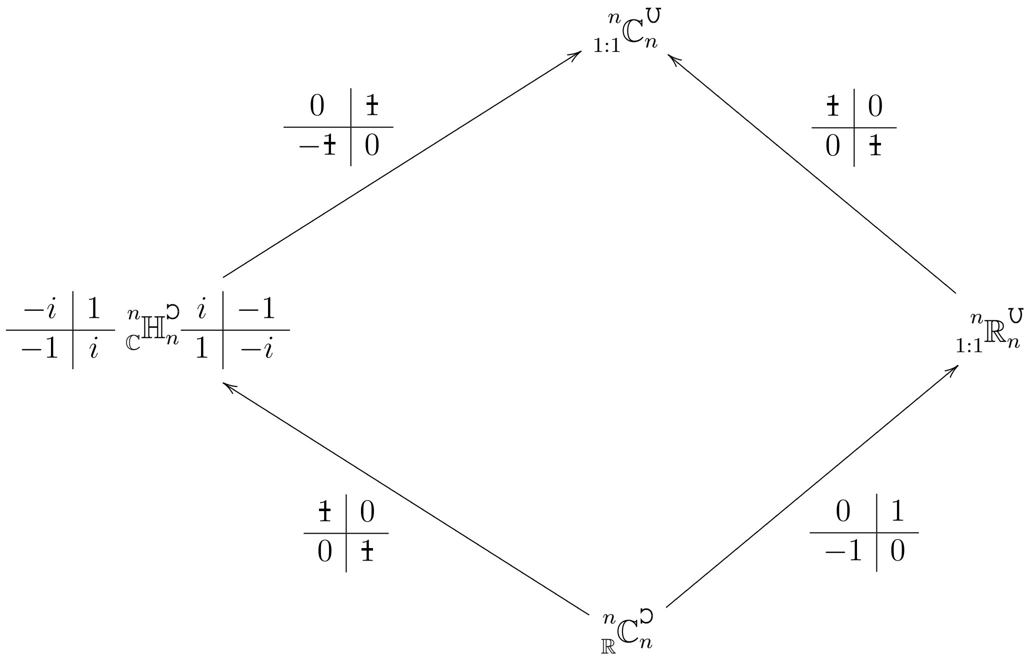

$$\overset{+}{g}_{\mathbb{R}} = J\, g^{*}_{\mathbb{R}}\, J$$

$$\underbrace{a+ib}_{\mathbb{R}} = \begin{array}{c|c} a & b \\ \hline -b & a \end{array}$$

$$\underbrace{a \overset{+}{+} ib}_{\mathbb{R}} = \underbrace{\overset{*}{a} + i\overset{*}{b}}_{\mathbb{R}} = \begin{array}{c|c} \overset{*}{a} & \overset{*}{b} \\ \hline -\overset{*}{b} & \overset{*}{a} \end{array} = J \left(\begin{array}{c|c} a & b \\ \hline -b & a \end{array}\right)^{*} J = J\, \underbrace{a+ib}_{\mathbb{R}}^{*}\, J$$

$${}^{n}_{\mathbb{R}}\mathbb{C}^{Ↄ}_{n} = \frac{g \in {}^{n}_{1:1}\mathbb{R}^{\mho}_{n}}{Ɉ g = g Ɉ}$$

$$\overset{+}{g}\, g = 1 \Rightarrow I = \overset{+}{g}_{\mathbb{R}}\, g_{\mathbb{R}} = J\, g^{*}_{\mathbb{R}}\, J\, g_{\mathbb{R}} \Rightarrow Ɨ = Ɨ\, J\, g^{*}_{\mathbb{R}}\, J\, g_{\mathbb{R}} = Ɨ\, J\, g^{*}_{\mathbb{R}}\, J\, g_{\mathbb{R}}$$

$$\begin{cases} \overset{*}{g} Ɨ g = Ɨ \\ g Ɉ = Ɉ \bar{g} \end{cases} \Rightarrow \overset{+}{g}\, J g = \overset{+}{g}\, Ɨ\, Ɉ\, g = \overset{+}{g}\, Ɨ\, \bar{g}\, Ɉ = Ɨ\, Ɉ = J$$

$$\overbrace{\Finv - z}^{-1}\underbrace{\Finv + z} \in {}^{\;\,n}_{1:1}\mathbb{C}^{\cup}_{n} \Leftrightarrow izJ \in {}^{n}_{2}\mathbb{C}^{\Cup}_{n}: \quad zJ = -J\overset{*}{z} = -(\overset{*}{z}J) \Leftrightarrow z = \begin{array}{c|c} a & b \\ \hline c & -\overset{*}{a} \end{array} \quad \begin{cases} b = -\overset{*}{b} \\ c = -\overset{*}{c} \end{cases}$$

$$z\Finv = -\Finv z \Leftrightarrow z = \begin{array}{c|c} a & b \\ \hline b & -a \end{array} \quad \begin{cases} a = \overset{*}{a} \\ b = -\overset{*}{b} \end{cases}$$

$$\overbrace{\Finv - z}^{-1}\underbrace{\Finv + z} \in \frac{{}^{\;\,n}_{1:1}\mathbb{R}^{\cup}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\text{Ↄ}}_{n}} \Leftrightarrow z = \begin{array}{c|c} a & b \\ \hline b & -a \end{array} \quad \begin{cases} a = \bar{a} = \overset{*}{a} \\ b = \bar{b} = -\overset{*}{b} \end{cases} \quad \Leftrightarrow a + ib \in {}^{n}\mathbb{C}^{\Cup}_{n}$$

$${}^{n}\mathbb{C}^{\Cup}_{n} \longrightarrow \frac{{}^{\;\,n}_{1:1}\mathbb{R}^{\cup}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\text{Ↄ}}_{n}}$$

$$z \in {}^{n}_{2}\mathbb{C}^{\Cup}_{n} \longrightarrow {}^{\;\,n}_{1:1}\mathbb{C}^{\cup}_{n} \ni \overbrace{\Finv - z}^{-1}\underbrace{\Finv + z}$$

$${}^{n}\mathbb{C}^{\Cup}_{n} \longrightarrow \frac{{}^{n}_{\mathbb{C}}\mathbb{H}^{\text{Ↄ}}_{n}}{{}^{n}_{\mathbb{R}}\mathbb{C}^{\text{Ↄ}}_{n}}$$

$${}^{\pm}\overset{\times}{\mathbb{C}}{}^{\bullet}$$

$$H_{h} = H_{p}$$