$$\overline{\mathbb{C}} = \mathbb{C} \cup 0 = \frac{z/w}{z{:}w \neq 0{:}0}$$

$$\frac{u|v|w \in \mathbb{R}^3}{u^2 + v^2 + w^2 = 1} = \mathbb{S}^2 \underset{\curvearrowleft}{\overset{\curvearrowright}{\rightleftarrows}} \overline{\mathbb{C}}$$

$$^{u:v:w}\curvearrowright = \frac{u + iv}{1 - w}$$

$$^{x+iy}\curvearrowleft = \frac{2x|2y|x^2 + y^2 - 1}{x^2 + y^2 + 1}$$

$$4\,x^2 + 4\,y^2 + \left(x^2 + y^2 - 1\right)^2 = 2\,x^2 + 2\,y^2 + x^4 + y^4 + 1 + 2\,x^2\,y^2 = \left(x^2 + y^2 + 1\right)^2$$

$$^{z}\curvearrowleft = \frac{z + \bar{z}\,|\,i\,\overparen{\bar{z} - z}\,|\,\bar{z}z - 1}{\bar{z}z + 1}$$

$$z \wr w = \frac{2\overparen{z - w}}{\underbrace{1 + \overline{z}^2}_{1/2}\underbrace{1 + \overline{w}^2}_{1/2}} : \quad z \in \mathbb{C} \ni w$$

$$z \wr \infty = \frac{2}{\underbrace{1 + \overline{z}^2}_{1/2}} : \quad z \in \mathbb{C}$$