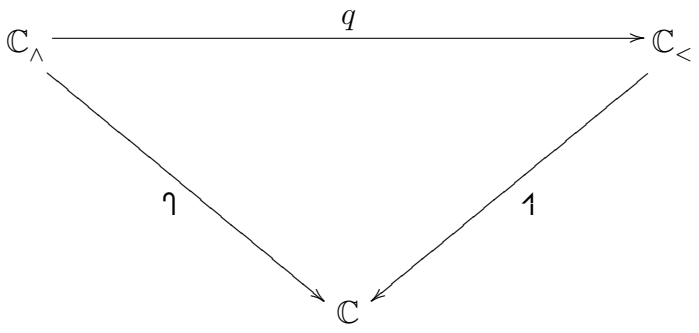
$$\mathbb{C}_{\wedge} \xrightarrow[\text{hol}]{q} \mathbb{C}_{<}$$

$$\tau \rtimes q = \mathfrak{e}^{2\pi i \tau}$$



$${}^{\tau}\mathfrak{1} = {}^{\tau \rtimes q}\mathfrak{1}$$

$$\int^{\mathfrak{l}} \underline{\mathfrak{1}}/\mathfrak{1} = \int^{\mathfrak{l} \rtimes q} \underline{\mathfrak{1}}/\mathfrak{1}$$

$${}^{\tau}\underline{\mathfrak{1}} = {}^{\tau}\underline{q}\,{}^{\tau \rtimes q}\underline{\mathfrak{1}} \Longrightarrow {}^{\tau}\widetilde{\underline{\mathfrak{1}}/\mathfrak{1}} = {}^{\tau}\underline{q}\,{}^{\tau \rtimes q}\widetilde{\underline{\mathfrak{1}}/\mathfrak{1}}$$

$$\Longrightarrow \text{LHS} = \int_{dt}^{I} {}^{t}\underline{\mathfrak{l}}\;{}^{t\mathfrak{l}}\widetilde{\underline{\mathfrak{1}}/\mathfrak{1}} = \int_{dt}^{I} {}^{t}\underline{\mathfrak{l}}\;{}^{t\mathfrak{l}}\underline{q}\;{}^{t\mathfrak{l} \rtimes q}\widetilde{\underline{\mathfrak{1}}/\mathfrak{1}} = \int_{dt}^{I} {}^{t}\underline{\mathfrak{l} \rtimes q}\;{}^{t\mathfrak{l} \rtimes q}\widetilde{\underline{\mathfrak{1}}/\mathfrak{1}} = \text{RHS}$$

$${}^{t}\mathfrak{l}_r = t + \frac{\log r}{2\pi i}$$

$$-\frac{1}{2} \leqslant t \leqslant \frac{1}{2}$$

$${}^{t}\widetilde{\mathfrak{l}_r \rtimes q} = \exp 2\pi i \left(t + \frac{\log r}{2\pi i} \right) = r\, \mathfrak{e}^{2\pi i t}$$

$$\frac{1}{2\pi i} \int^{\mathfrak{l}_r} \underline{\mathfrak{1}}/\mathfrak{1} = \frac{1}{2\pi i} \int^{\mathfrak{l}_r \rtimes q} \underline{\mathfrak{1}}/\mathfrak{1} \rightsquigarrow \nu_0\left(\mathfrak{1}\right) = \nu_{\infty}\left(\mathfrak{1}\right)$$