and $\Gamma \subset G$ is the discrete subgroup all of whose entries are Gaussian integers $\alpha + i\beta$ $(\alpha, \beta \in \mathbb{Z})$. Under the mapping $g \longmapsto (a, c)$ we may check that M is a holomorphic fiber bundle over a complex 2-torus with fiber a complex 1-torus.

Γ

$$\begin{array}{ccc} G/\Gamma & \xrightarrow{\phi} & \mathbb{C}^2/\mathbb{Z}^{2\times 2} \\ \in & & \in \\ g\Gamma & \longmapsto & [(a, c)] \end{array} \quad \text{where} \quad g = \begin{pmatrix} 1 & a & b \\ 0 & 1 & c \\ 0 & 0 & 1 \end{pmatrix}$$

$$\underset{g}{\begin{pmatrix} 1, & a, & b \\ 0, & 1, & c \\ 0, & 0, & 1 \end{pmatrix}} \underset{h}{\begin{pmatrix} 1 & m, & n \\ 0 & 1 & l \\ 0 & 0 & 1 \end{pmatrix}} = \underset{gh}{\begin{pmatrix} 1, & m+a, & n+al+b \\ 0, & 1, & l+c \\ 0, & 0, & 1 \end{pmatrix}}$$

$$gh\Gamma \longmapsto [(a+m,\ l+c)] \quad \text{where} \quad \begin{array}{l} m = m_1 + i m_2 \\ l = l_1 + i l_2 \\ n = n_1 + i n_2 \end{array}$$

$$\begin{pmatrix} 1, & a, & b \\ 0, & 1, & c \\ 0, & 0, & 1 \end{pmatrix} \begin{pmatrix} 1 & 0 & n \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} = \begin{pmatrix} 1 & a, & n+b \\ 0 & 1 & c \\ 0 & 0 & 1 \end{pmatrix}$$

If $0 \le \operatorname{Re} a < 1$, $0 \le \operatorname{Im} a < 1$, $0 \le \operatorname{Re} c < 1$ & $0 \le \operatorname{Im} c < 1$,
$g\Gamma$ has a unique representative. b, (mod)
where $0 \le \operatorname{Re} b < 1$ $0 \le \operatorname{Im} b < 1$.
$\Rightarrow$ $\phi^{-1}[(a, c)] = \mathbb{C}/\mathbb{Z}^2$, a complex 1-torus.