

Info

This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on January 25, 2026 3:17:20 PM, was last modified on March 26, 2026 5:08:46 PM, and was exported on September 7, 2026 3:04:09 PM.

$SO(2)(\mathbb{R}) \curvearrowright D^* := D \setminus \{0\}$

#wiki/Man/C/1

universal covering

As

$|\exp(2\pi iz)| = e^{-2\pi \Im(z)}$

we have

$$\begin{array}{ccc} \mathbb{Z} \cong \langle z \mapsto z + 1 \rangle & \curvearrowright & \mathbb{R}H_{\mathbb{U}}^2 \\ & & \downarrow z \mapsto \exp(2\pi iz) \\ & & D^* \end{array}$$

Automorphisms

$\operatorname{AutMan}_{\mathbb{C}}(D^*) \cong SO(2)(\mathbb{R})$

hyperbolic metric

hyperbolic area is infinite

Current note has 0 direct children and 0 total descendants.

- [stretchy](#)
 - $D^* := D \setminus \{0\}$

And it has 62 siblings.

- [stretchy](#)
 - [Trefoil_3_1_knot](#)
 - [The only compact connected Lie group that can act faithfully on a torus is itself](#)
 - [Hecke algebras](#)
 - $\overline{B^n}$
 - $BS(1,2)$
 - $(\mathbb{C}, +, \times)$
 - $D^* := D \setminus \{0\}$
 - [Cantor set](#)
 - [Configuration space of \$N\$ rigid points in \$\mathbb{R}^3\$](#)
 - [Free groups](#)
 - $GL(2)(\mathbb{Z}) \curvearrowright T^2$
 - H_2^3
 - $[a,b]$
 - [Figure 8 knot](#)
 - [Lamplighter group on \$\mathbb{Z}_2\$](#)
 - $\beta\mathbb{N}$
 - $\#_2\mathbb{R}P^2$
 - $\prod_{i\in\mathbb{N}}\{1,\dots,n_i\}$
 - $\mathbb{R}P^n$
 - $(\mathbb{Q}, +, \times, <)$
 - $\mathbb{Q}_{\hat{p}}$
 - $\overline{\mathbb{Q}}$
 - $\mathbb{Q}_{\text{constr}}$
 - $\mathbb{Q}(\xi_n)$
 - $\mathcal{O}_{\overline{\mathbb{Q}}}$
 - $(\mathbb{R}, +, \times, <, \sup)$
 - [Homeomorphism of \$\mathbb{R}^2\$ that sends \$\mathbb{N}\$ to a countable closed discrete subset](#)
 - $\mathbb{R}^2 \times S^1$
 - $\mathbb{R}^n$
 - $\mathbb{R} \times S^1$
 - $\mathbb{R} \times S^2$
 - S^1
 - $S^1 \wedge S^1$
 - $S^1 \times S^n$
 - S^2 [and](#) $\mathbb{C}P^1$
 - [Mapping torus of the antipodal map of \$S^2\$](#)
 - S^3
 - S^n
 - [I-bundle](#)
 - [Symmetric group](#)
 - $\mathbb{I}$
 - T^2
 - T_g^2
 - $T_{0,0,3}^2$

- $\mathbb{R}^2 \setminus \{0\}$
- Three $T^2_{1,0,1}$ -glued at their boundaries
- $T^2_{1,1,0}$
- T^2_2
- $T^2_g \times [0,1]$
- $\#_{\mathbb{N}} T^2$
- Thompson's group
- T^n
- 3-valent tree
- 4-valent tree
- $[0,1]^{\mathbb{N}}$ with product topology
- Whitehead manifolds
- $\mathbb{Z}$
- $\mathbb{Z}[\sqrt{m}]$
- $\mathbb{Z}[X]$
- $\mathbb{Z}^{\mathbb{N}}$
- $\mathbb{Z}[i]$
- $\mathbb{Z}[i\sqrt{5}]$