

This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on August 29, 2026 2:12:12 AM, was last modified on September 7, 2026 2:42:11 PM, and was exported on September 7, 2026 3:04:04 PM.

$$T^2_{1,1,0}$$

From [Deformation retract of a punchered torus to wedge sum of two circles](#) we know

$$T^2_{1,1,0} \sim S^1 \wedge S^1$$

implying

$$\pi_1(T^2_{1,1,0}, \bullet) \cong F_2$$

and

$$H_1(T^2_{1,1,0}) \cong \mathbb{Z}_2$$

$H_2(T^2_{1,1,0}) \cong 0$

Current note has 1 direct children and 1 total descendants.

- stretchy
 - $T^2_{1,1,0}$
 - [Deformation retract of a punchered torus to wedge sum of two circles](#)

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](#)
 - $\overline{B^n}$
 - $\mathrm{BS}(1,2)$
 - $(\mathbb{C}, +, \times)$
 - $D^* := D \setminus \{0\}$
 - [Cantor set](#)
 - [Configuration space of \$N\$ rigid points in \$\mathbb{R}^3\$](#)
 - [Free groups](#)
 - $GL(2)(\mathbb{Z}) \curvearrowright T^2$
 - H^3_2
 - $[a,b]$
 - [Figure 8 knot](#)
 - [Lamplighter group on \$\mathbb{Z}_2\$](#)
 - $\beta \mathbb{N}$
 - $\#_2 \mathbb{R}P^2$
 - $\prod_{i \in \mathbb{N}} \{1, \dots, n_i\}$
 - $\mathbb{R}P^n$
 - $(\mathbb{Q}, +, \times, <)$
 - $\mathbb{Q}_{\hat{p}}$
 - $\overline{\mathbb{Q}}$
 - $\mathbb{Q}_{\mathrm{constr}}$
 - $\mathbb{Q}(\xi_n)$
 - $\mathcal{O}_{\overline{\mathbb{Q}}}$
 - $(\mathbb{R}, +, \times, <, \sup)$
 - [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^2_g
 - $T^2_{0,0,3}$
 - $\mathbb{R}^2 \setminus \{0\}$
 - [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
- $\mathbb{Z}$
- $\mathbb{Z}[\sqrt{m}]$
- $\mathbb{Z}[X]$
- $\mathbb{Z}^{\mathbb{N}}$
- $\mathbb{Z}[i]$
- $\mathbb{Z}[i\sqrt{5}]$