As a generator of $H^1(\mathcal{T}^0(3,2), P^0_{3,2(2)})$

↑ NON co-ori. version

we get

$$\hat{\alpha}_3 = [\tilde{I}_0^2 + \tilde{I}_e^2] \quad @ \quad \tilde{I}_*^2$$

Corollary

$|\tilde{I}^2(f)| \in \mathbb{Z}_2$ is a cobordism invariant of f

Theorem

$$\mathcal{M}(2) \xrightarrow{\cong} \mathbb{Z} \oplus \mathbb{Z}_2$$

$$[f] \mapsto (\max(f) - \min(f),\ |\tilde{I}^2(f)|)$$

$$\mathcal{M}^{SO}(2) \xrightarrow{\cong} \mathbb{Z}$$

$$[f] \longmapsto (\max(f) - \min(f))$$

univ. cpx of sing. fibers ⇝ COMPLETE cob. inv. !