PSEUDO-BRIDGE TRISECTIONS

SHINTARO FUSHIDA-HARDY

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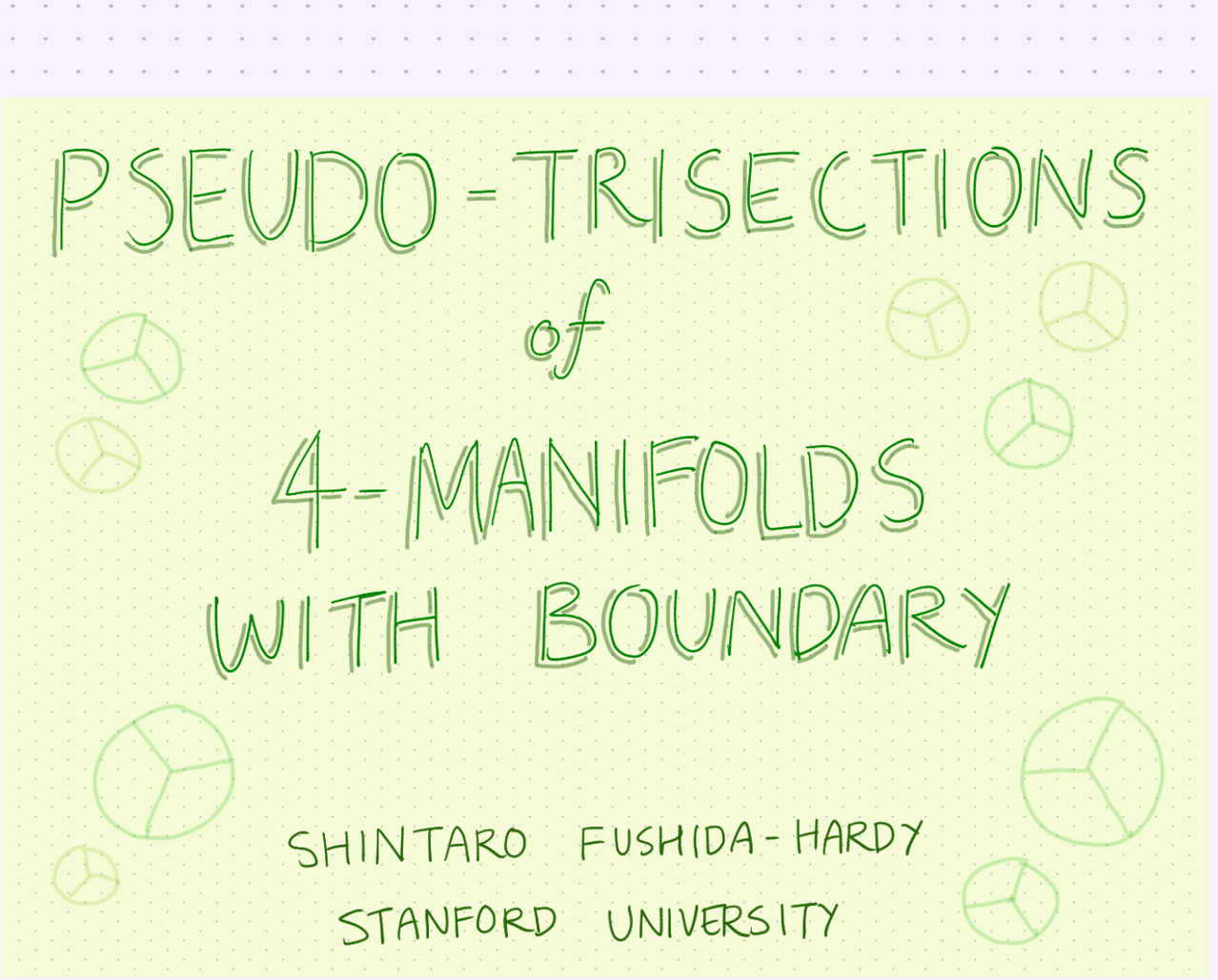
PREVIOUSLY, IN GEORGIA...



PREVIOUSLY, IN GEORGIA...

PSEUDO-TRISECTIONS of 4-MANIFOLDS WITH BOUNDARY

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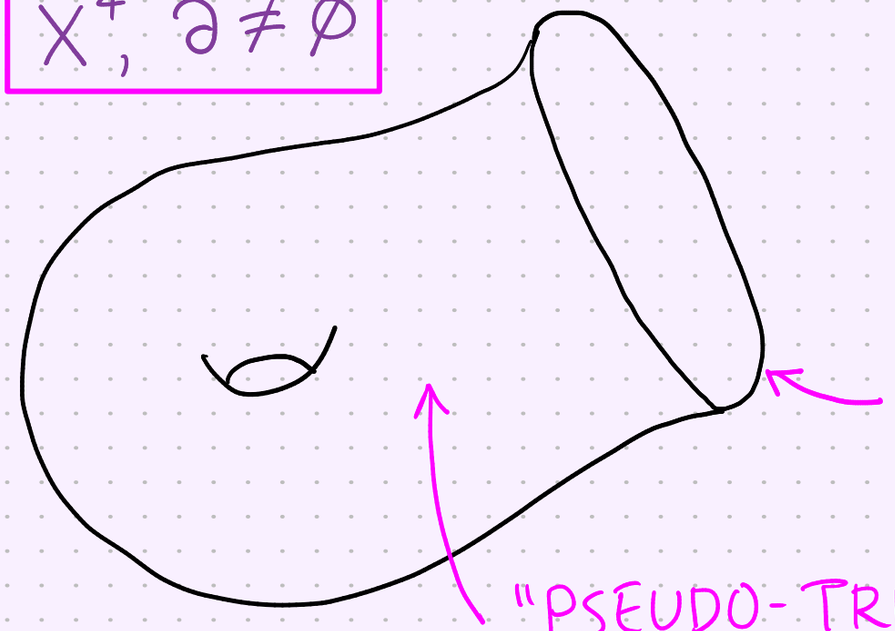
RECAP:

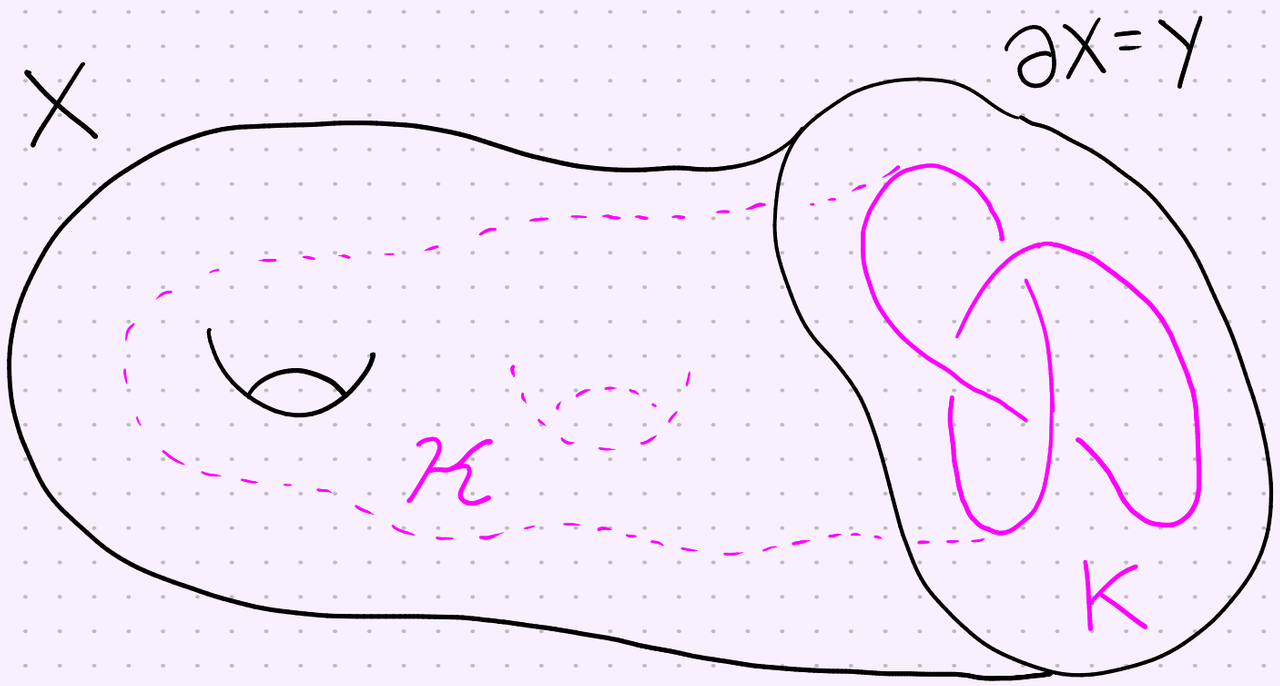
$X^4, \partial \neq \emptyset$



GENERALISATION OF RELATIVE TRISECTIONS

DESTABILISATION OF ∂X^4 EXTENDS TO A "DESTABILISATION" OF X.

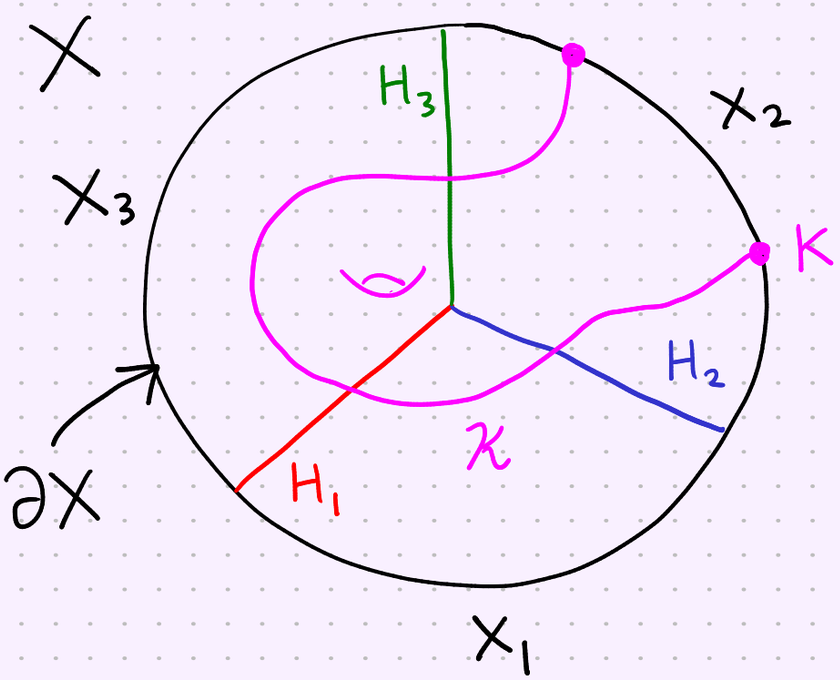
RELATIVE & PSEUDO-BRIDGE TRISECTIONS



$(\mathcal{K}, K) \subseteq (X, Y)$

GOAL: POSITION $(\mathcal{K}, K)$ "NICELY" IN A □-TRISECTION OF (X, Y).

RELATIVE ~~& PSEUDO BRIDGE~~ TRISECTIONS

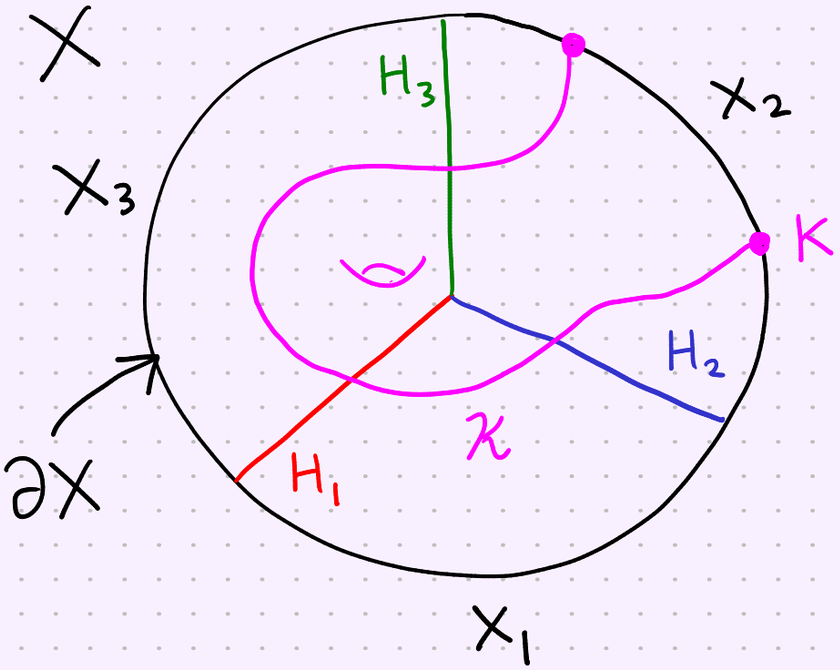


$(\mathcal{K}, K)$ IS IN RELATIVE BRIDGE POSITION IF:

- TOPOLOGY
  - $\mathcal{K} \cap X_i$ AND $\mathcal{K} \cap H_i$ ARE ALL "TRIVIAL"
- MORSE THEORY
  - INTERSECTIONS ARE "VERTICAL" OR "HORIZONTAL"

SMALL DIAGRAMS, HIGH COMPLEXITY

~~RELATIVE &~~ PSEUDO-BRIDGE TRISECTIONS



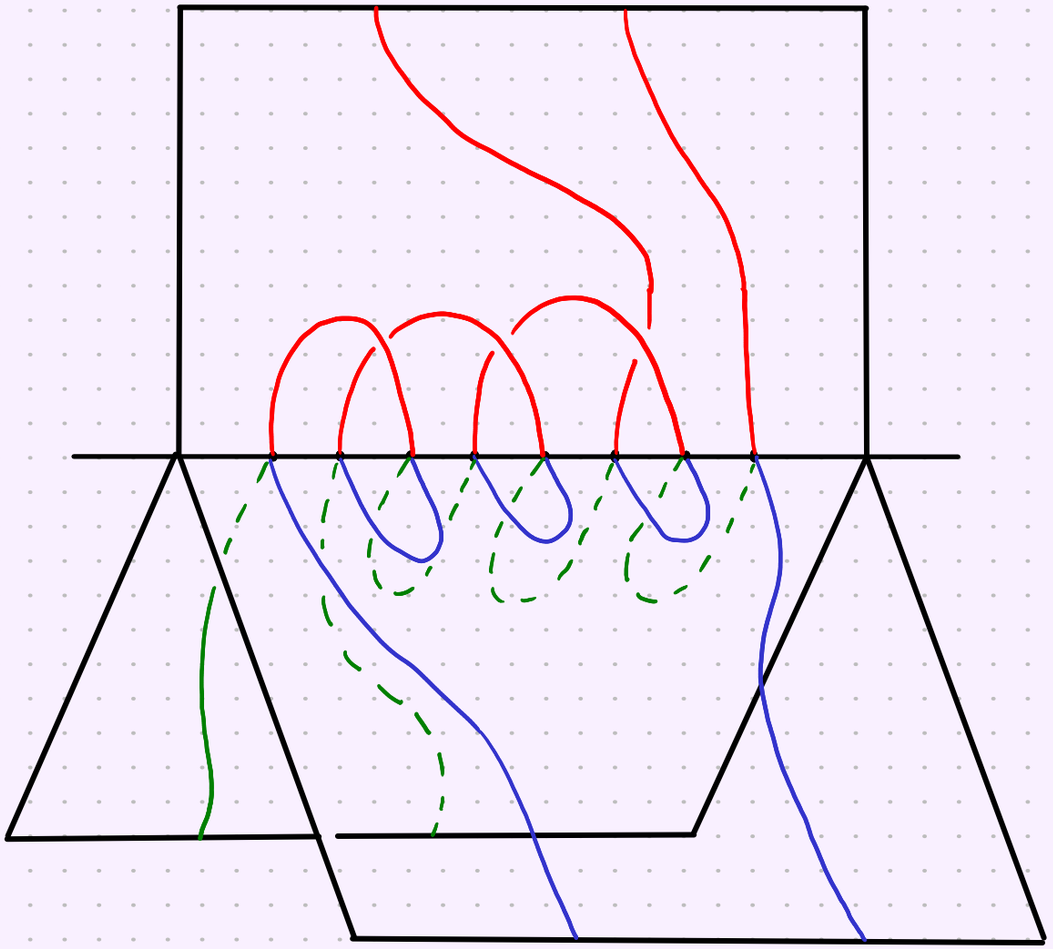
$(\mathcal{K}, K)$ IS IN PSEUDO-BRIDGE POSITION IF:

- TOPOLOGY
  - $\mathcal{K} \cap X_i$ AND $\mathcal{K} \cap H_i$ ARE ALL "TRIVIAL"

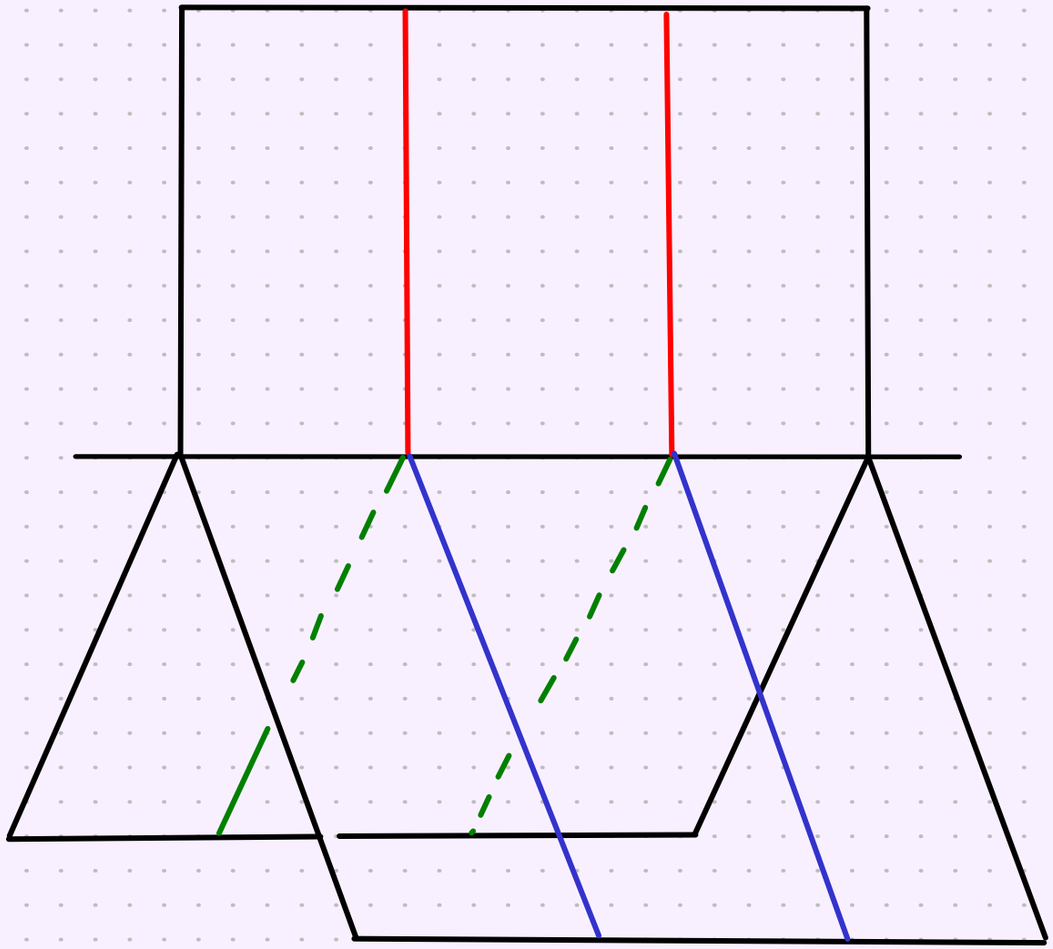
~~- MORSE THEORY~~
~~- INTERSECTIONS ARE "VERTICAL" OR "HORIZONTAL"~~

BIG DIAGRAMS, LOW COMPLEXITY

EXAMPLE: USUAL SEIFERT SURFACE OF 3, IN B^4

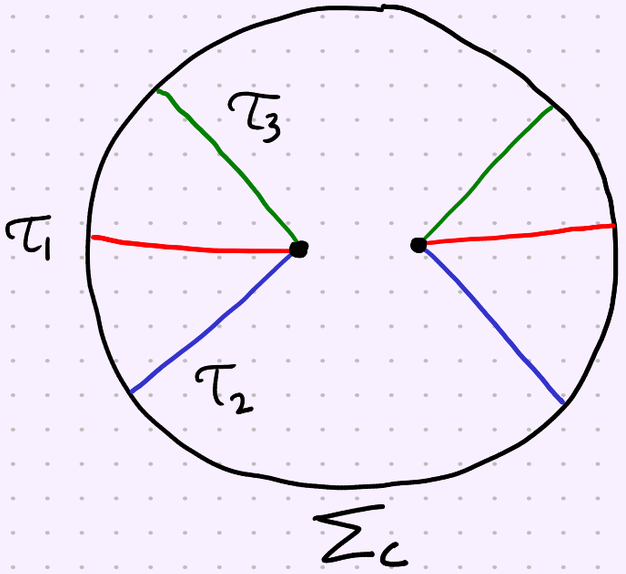


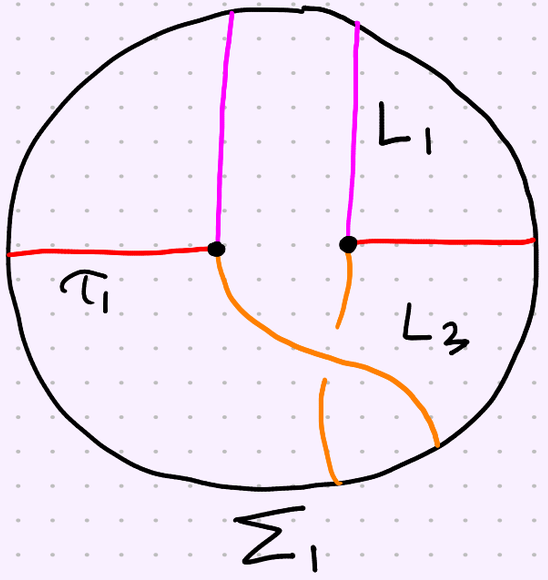
TRIPLANE DIAGRAM OF A RELATIVE BRIDGE TRISECTION

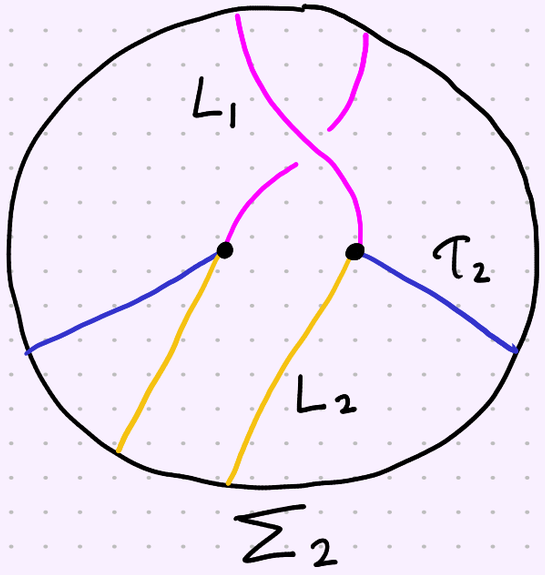


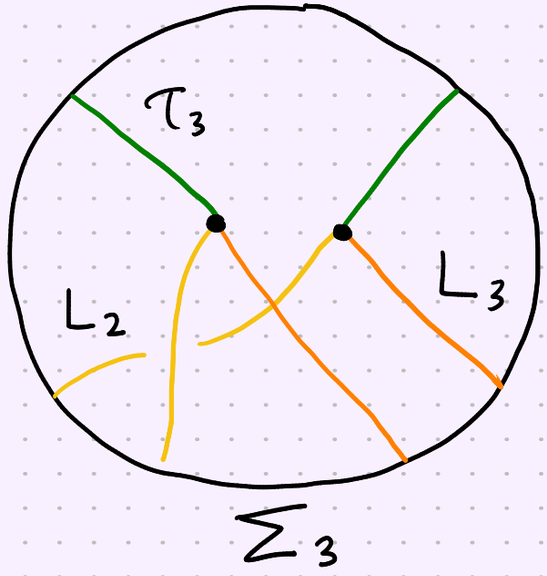
"TRIPLANE DIAGRAM" OF A PSEUDO-BRIDGE TRISECTION

EXAMPLE: USUAL SEIFERT SURFACE OF 3_1 IN B^4









PSEUDO-SHADOW DIAGRAM OF A PSEUDO-BRIDGE TRISECTION

SHINTARO FUSHIDA-HARDY

THANK YOU!