

Ivan Yakovlev

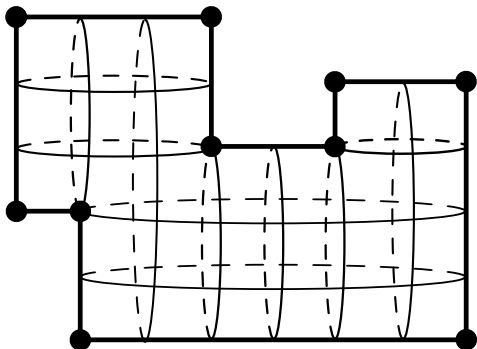
LaBRI, Université de Bordeaux

`iyakovlev23.github.io`

What?

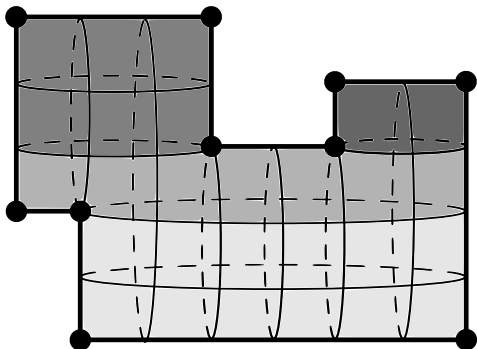
What?

- Number of cylinders in a random square-tiled surfaces in a fixed stratum.



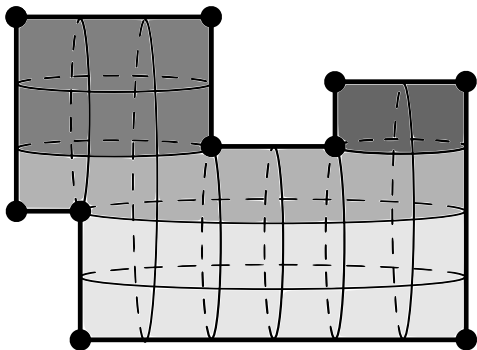
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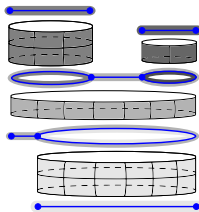
What?

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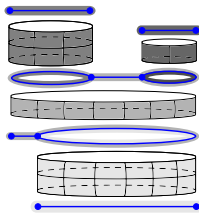
- Probability to have k cylinders?

How?



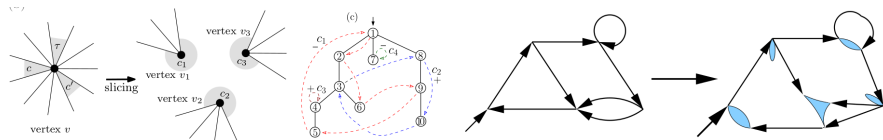
ST surface = cylinders + (metric) ribbon graphs

How?



ST surface = cylinders + (metric) ribbon graphs

Count metrics on ribbon graphs recursively using surgeries / bijections:



Why?

- Asymptotic enumeration of ST surfaces \iff computation of Masur-Veech volumes of strata;
- MV volumes computed as intersection numbers (Chen-Möller-Sauvaget-Zagier)
- combinatorial approach gives refined generating series \implies intersection theory interpretation?
- also interesting combinatorics!