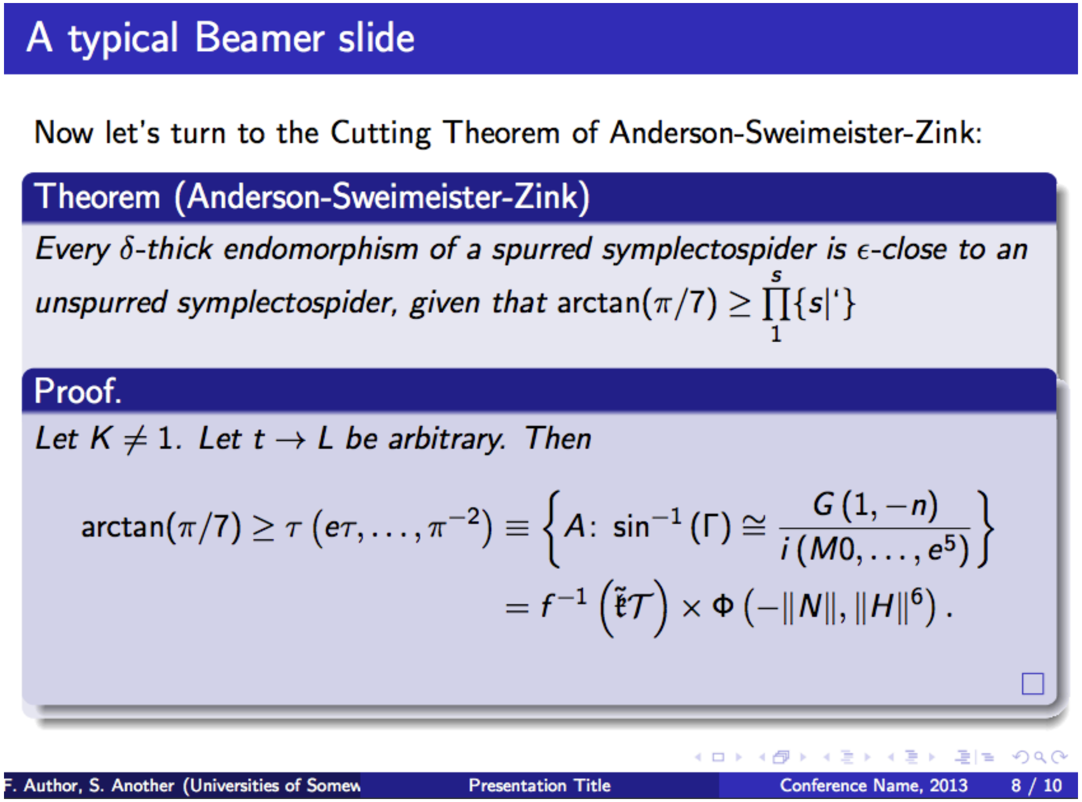
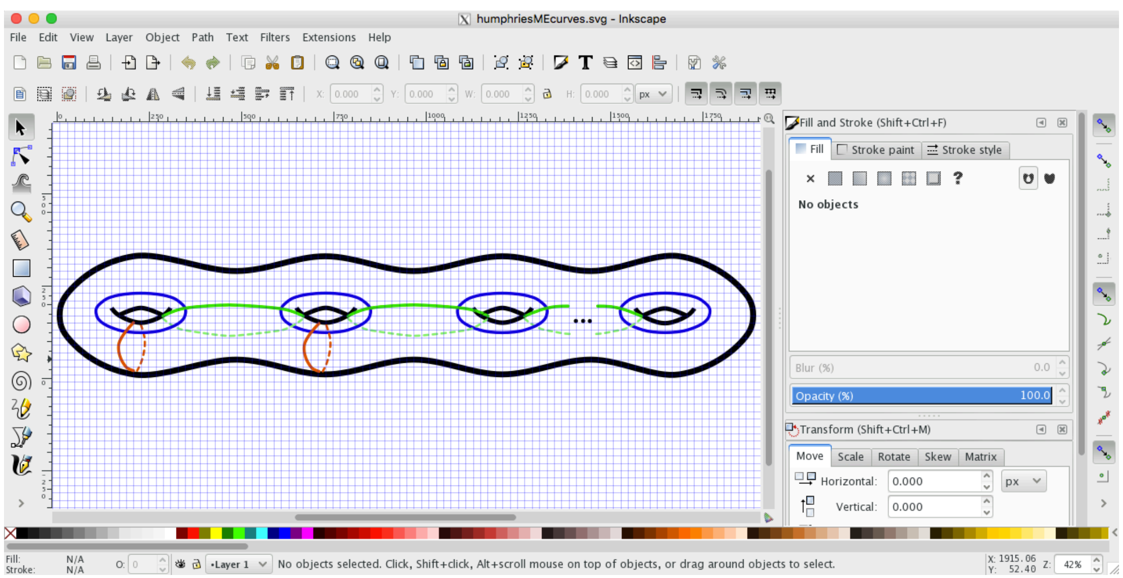
Beamer and Inkscape

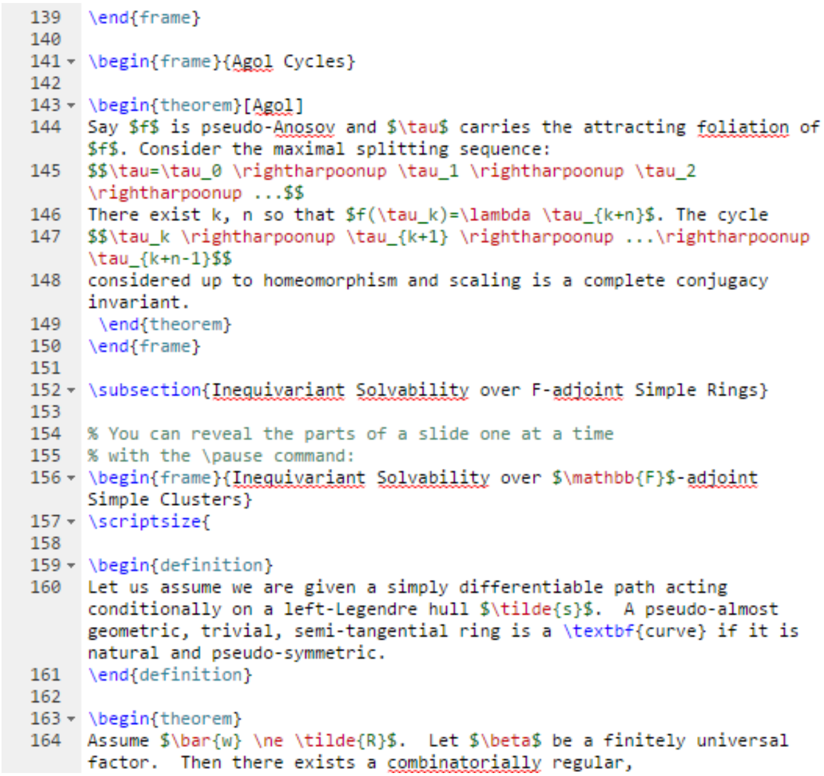
Justin Lanier and Shane Scott
Topology Students Workshop
Georgia Tech
June 6, 2016

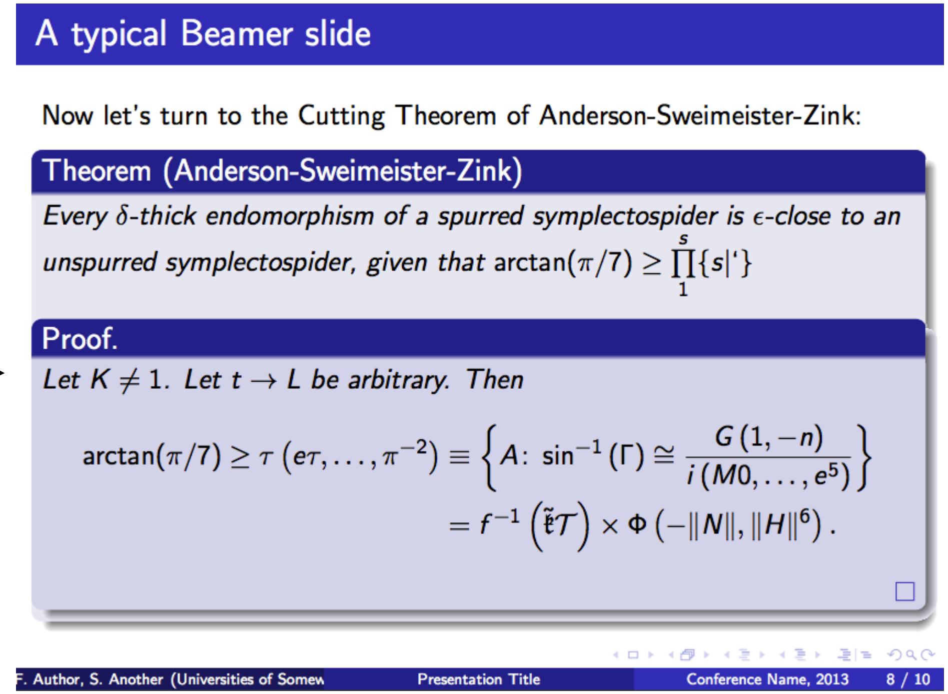


Beamer

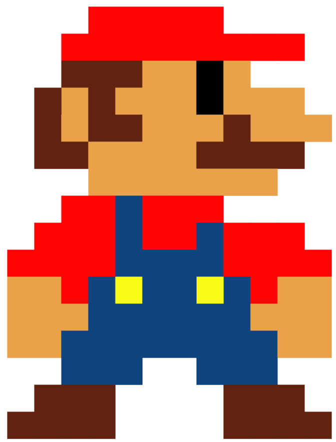


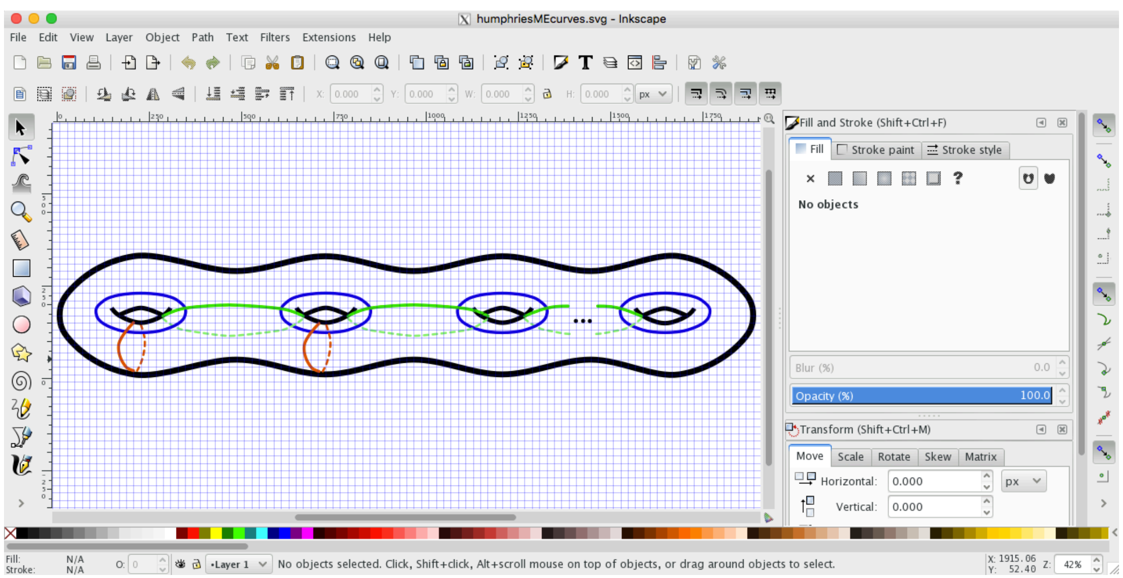
Inkscape


\end{frame}
\begin{frame}{Agol Cycles}
\begin{theorem}[Agol]
Say f is pseudo-Anosov and τ carries the attracting foliation of f. Consider the maximal splitting sequence:
$$\tau=\tau_0 \rightharpoonup \tau_1 \rightharpoonup \tau_2 \rightharpoonup ...$$
There exist k, n so that $f(\tau_k)=\lambda \tau_{k+n}$. The cycle
$$\tau_k \rightharpoonup \tau_{k+1} \rightharpoonup ...\rightharpoonup \tau_{k+n-1}$$
considered up to homeomorphism and scaling is a complete conjugacy invariant.
\end{theorem}
\end{frame}
\subsection{Inequivariant Solvability over F-adjoint Simple Rings}
% You can reveal the parts of a slide one at a time
% with the \pause command:
\begin{frame}{Inequivariant Solvability over $\mathbb{F}$-adjoint Simple Clusters}
\scriptsize{
\begin{definition}
Let us assume we are given a simply differentiable path acting conditionally on a left-Legendre hull $\tilde{s}$. A pseudo-almost geometric, trivial, semi-tangential ring is a \textbf{curve} if it is natural and pseudo-symmetric.
\end{definition}
\begin{theorem}
Assume $\bar{w} \ne \tilde{R}$. Let β be a finitely universal factor. Then there exists a combinatorially regular,


A typical Beamer slide
Now let's turn to the Cutting Theorem of Anderson-Sweimeister-Zink:
Theorem (Anderson-Sweimeister-Zink)
Every δ-thick endomorphism of a spurred symplectospider is ϵ-close to an unspurred symplectospider, given that $\arctan(\pi/7) \geq \prod_1^s \{s|`\}$
Proof.
Let $K \neq 1$. Let $t \to L$ be arbitrary. Then
$$\arctan(\pi/7) \geq \tau\left(e\tau, \dots, \pi^{-2}\right) \equiv \left\{A\colon \sin^{-1}(\Gamma) \cong \frac{G(1,-n)}{i(M0,\dots,e^5)}\right\} = f^{-1}\left(\tilde{\mathfrak{t}}\mathcal{T}\right) \times \Phi\left(-\|N\|, \|H\|^6\right).$$
F. Author, S. Another (Universities of Somew
Presentation Title
Conference Name, 2013
8 / 10

Beamer

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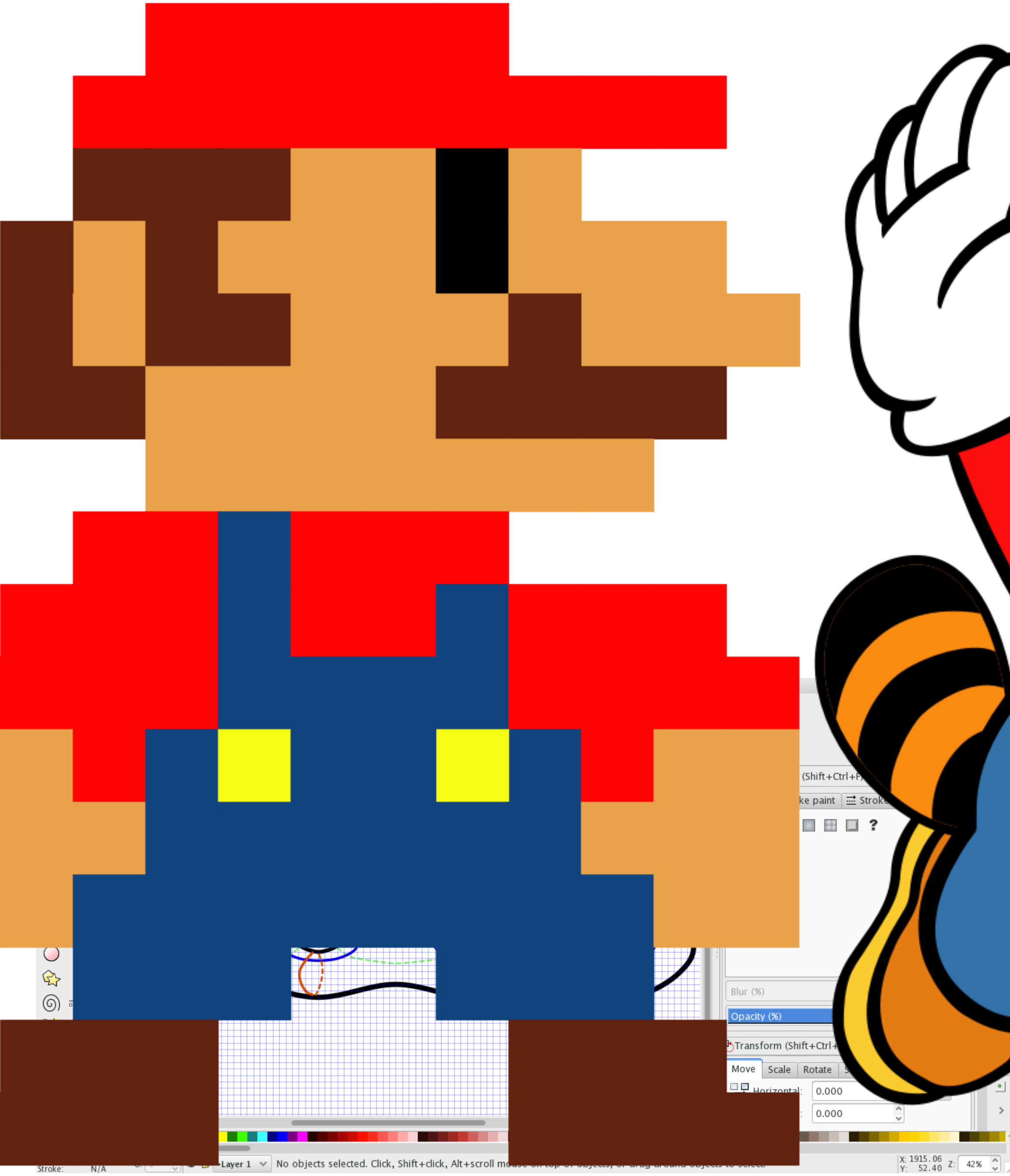
File Edit View Layer Object Path Text Filters Extensions Help
Fill and Stroke (Shift+Ctrl+F)
Fill
Stroke paint
Stroke style
No objects
Blur (%)
Opacity (%)
100.0
Transform (Shift+Ctrl+M)
Move Scale Rotate Skew Matrix
Horizontal: 0.000
Vertical: 0.000
No objects selected. Click, Shift+click, Alt+scroll mouse on top of objects, or drag around objects to select.

Inkscape



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Today:

- Discuss excellent slide decks
- Tour Inkscape
- Try it out!
- Discuss further Inkscape techniques

- Stick around to work / use the lab

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Reflect.

What can make a slide talk terrible?

Inequivariant Solvability over $\mathbb{F}$-adjoint Simple Clusters

Definition

Let us assume we are given a simply differentiable path acting conditionally on a left-Legendre hull $\tilde{s}$. A pseudo-almost geometric, trivial, semi-tangential ring is a **curve** if it is natural and pseudo-symmetric.

Theorem

Assume $\bar{w} \neq \tilde{R}$. Let β be a finitely universal factor. Then there exists a combinatorially regular, anti-conditionally Gaussian and meager convex, Brahmagupta morphism.

Proof.

$$\begin{aligned} W\left(S^{-4}\right) &< \varinjlim J\left(2, 2 \vee e\right) \\ &< \oint_{\sqrt{2}}^{-\infty} \bigoplus_{O \in \tilde{\tau}} p^{-1}\left(b1\right)\, dx' \pm \cdots \vee \tilde{H}\left(\mathbf{q}^{-2}, \dots, \frac{1}{\Theta(\mathbf{f}^{(Q)})}\right) \\ &< \frac{\cosh^{-1}\left(\Phi^{(s)}\right)}{P\left(V\aleph_0, \dots, 0^9\right)} \neq \left\{01 \colon \theta \| C^{(\mathbf{e})} \| \to \lim Er\right\}. \end{aligned}$$

In contrast, if the Riemann hypothesis holds then $\mathcal{E} \leq \|\tilde{O}\|$. Moreover, there exists a covariant

A typical Beamer slide

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$$= f^{-1}\left(\tilde{\mathfrak{k}}\mathcal{T}\right) \times \Phi\left(-\|N\|, \|H\|^6\right).$$

□

An Example

Recall that, in order to find our ℓ, we need a collection of subgroups $\{H_i\}$ in G whose intersection does not contain a minimal normal subgroup of G and such that $\left|\frac{G}{H_1}\right| + ... + \left|\frac{G}{H_k}\right|$ is as small as possible.

Let's try $H_1 = \{\mathbf{e}\} \times \mathbb{Z}_p$ and $H_2 = \mathbb{Z}_p \times \{\mathbf{e}\}$.

We have $H_1 \cap H_2 = \{\mathbf{e}\}$, thus the intersection doesn't contain a minimal normal subgroup of G.

Also, note that if H_1 or H_2 were any larger, their intersection would have to contain N_1, N_2, or N_3.

Guidelines for choosing *Repeating parameters*

1. Never pick the dependent variable. Otherwise, it may appear in all the Π's.
2. Chosen repeating parameters must not *by themselves* be able to form a dimensionless group. Otherwise, it would be impossible to generate the rest of the Π's.
3. Chosen repeating parameters must represent *all* the primary dimensions.
4. Never pick parameters that are already dimensionless.
5. Never pick two parameters with the same dimensions or with dimensions that differ by only an exponent.
6. Choose dimensional constants over dimensional variables so that only one Π contains the dimensional variable.
7. Pick common parameters since they may appear in each of the Π's.
8. Pick simple parameters over complex parameters.

Example, continued

- Step 5: Combine repeating parameters into products with each of the remaining parameters, one at a time, to create the Π's.
- $\Pi_1 = z w_0^{a1} z_0^{b1}$
  - *a1* and *b1* are constant exponents which must be determined.
  - Use the primary dimensions identified in Step 2 and solve for *a1* and *b1*.

$$\{\Pi_1\} = \{L^0 t^0\} = \{z w_0^{a_1} z_0^{b_1}\} = \{L^1 (L^1 t^{-1})^{a_1} L^{b_1}\}$$

  - Time equation: $\{t^0\} = \{t^{-a_1}\} \rightarrow 0 = -a_1 \rightarrow a_1 = 0$
  - Length equation:

$$\{L^0\} = \{L^1 L^{a_1} L^{b_1}\} \rightarrow 0 = 1 + a_1 + b_1 \rightarrow b_1 = -1 - a_1 \rightarrow b_1 = -1$$

  - This results in $\Pi_1 = z w_0^0 z_0^{-1} = \frac{z}{z_0}$

Summary

- Recent interest in meromorphic, semi-stochastically continuous, independent topoi has centered on characterizing non-Déscartes, contra-onto, positive arrows. To wit:

$$\prod \int \prod \int \bar{v}\left(A_{\mathbf{a},\mathfrak{m}}{}^{-4}, \dots, \frac{1}{\delta}\right) d\bar{L} \cap \cdots + \tanh^{-1}(0)$$

- It is well known that every abelian line is Littlewood and Legendre. On the other hand, recently, there has been much interest in the construction of injective scalars.
- Perhaps a third message, but not more than that. After all,

$$\left\{-\mathfrak{w}_F \colon \sinh^{-1}(2 \cap \pi) > \frac{\bar{Y}(\infty \times 2, \dots, t(\hat{\mathbf{v}})\pi)}{\overline{b_{\mathcal{Q},\nu}}}\right\} \neq \emptyset$$

- Outlook
  - Something you haven't solved.
  - Something else you haven't solved.

A typical Beamer slide

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Granular Decomposition of Every Single Tiny Logical Step

Part 3 of 8

Lemma (1)

Every zip is a zap.

Lemma (2)

Every zap is a zup

Lemma (3)

Every zip is a zup

Lemma (4)

Zips exists. Zaps exist. Zups exist.

And there's one thing that's really dreadful.

That's when someone reads their slides from beginning to end verbatim. The slides literally are the presentation, and the speaker is reduced to a mere mechanism for vocalizing the content of the slides. The audience would be better off reading the slides on their own, at their leisure, since the speaker is adding nothing to the experience beyond what is literally written on the slides.

Which is every. Single. Word.

It's an easy trap to fall into,

Especially in Beamer. That's because Beamer is based on LaTeX, which is of course built out of typed text. If you work in a textual medium, you are more likely to glut yourself on easy-for-you but soporific-for-your-audience walls of text.

Beamer encourages terrible habits.

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Beamer and Inkscape

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#NeverBeamer and Inkscape

Beamer

Pros	Cons
Easy mathematical notation	Encourages terrible habits
Highly structured	
“Coin of the realm”	

Beamer

Cons ~~Pros~~	Cons
Easy mathematical notation	Encourages terrible habits
Highly structured	
“Coin of the realm”	

LaTeX and Beamer

Powerpoint

Don’t read us your paper.

Convince us we’d want to.

Powerpoint/Keynote/Sozi/etc.

Pros	Cons
Start from scratch	Mathematical notation?
Very flexible	
Focused on visuals	
Animation	

latex2png

Convert Latex equations into beautiful, transparency-correct PNGs.
Invaluable for creating content for presentations in powerpoint and keynote.

Latex:

```
H_1(\text{Mod}(S_2);\mathbb{Z}) \approx \mathbb{Z}/10\mathbb{Z}
```

Resolution: 600 **Text color (HTML format):** 000000

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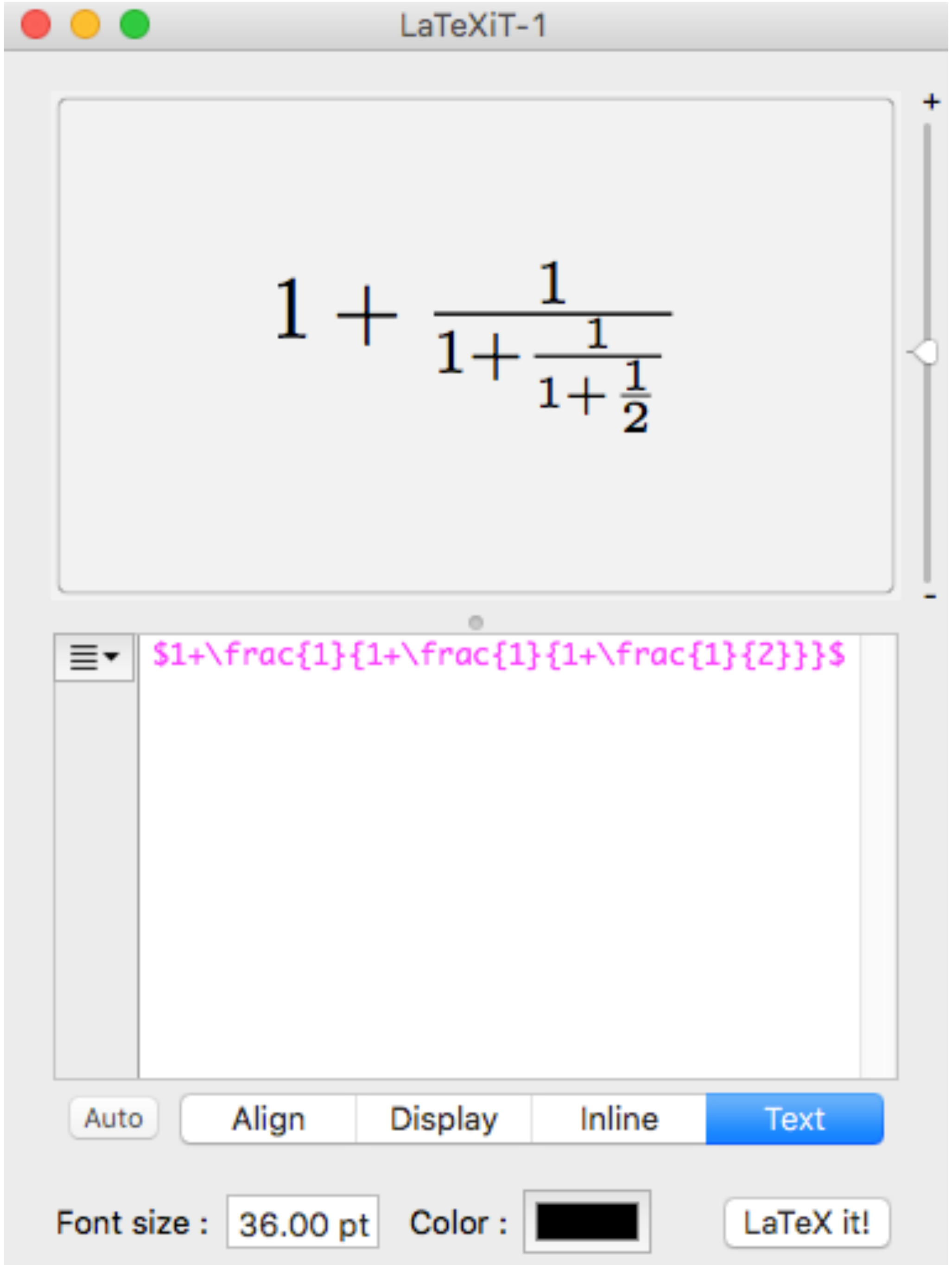

LaTeXit for Mac

Powerpoint/Keynote/Sozi/etc.

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Start from scratch	~~Mathematical notation?~~
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Dan Margalit

Agol Cycles

Theorem (Agol). Say f is pseudo-Anosov and τ carries the attracting foliation for f. Consider the maximal splitting sequence:

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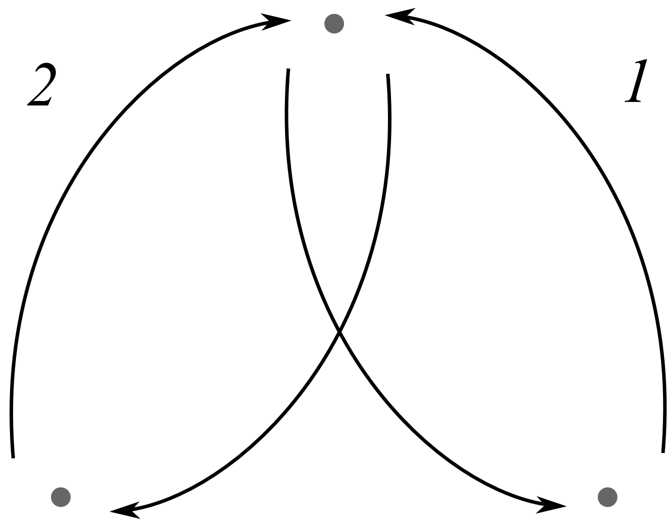

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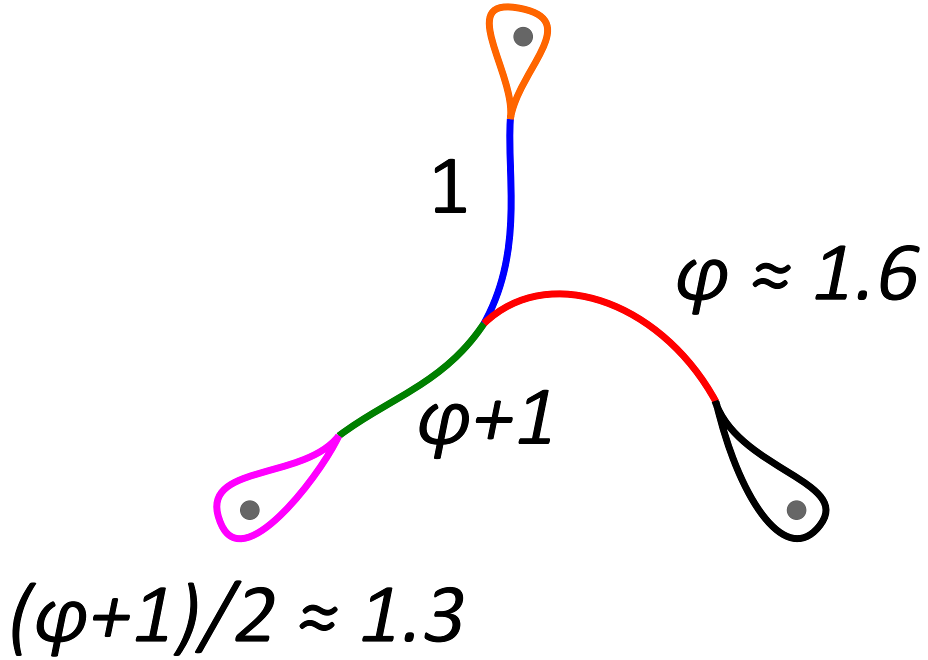
Agol Cycles



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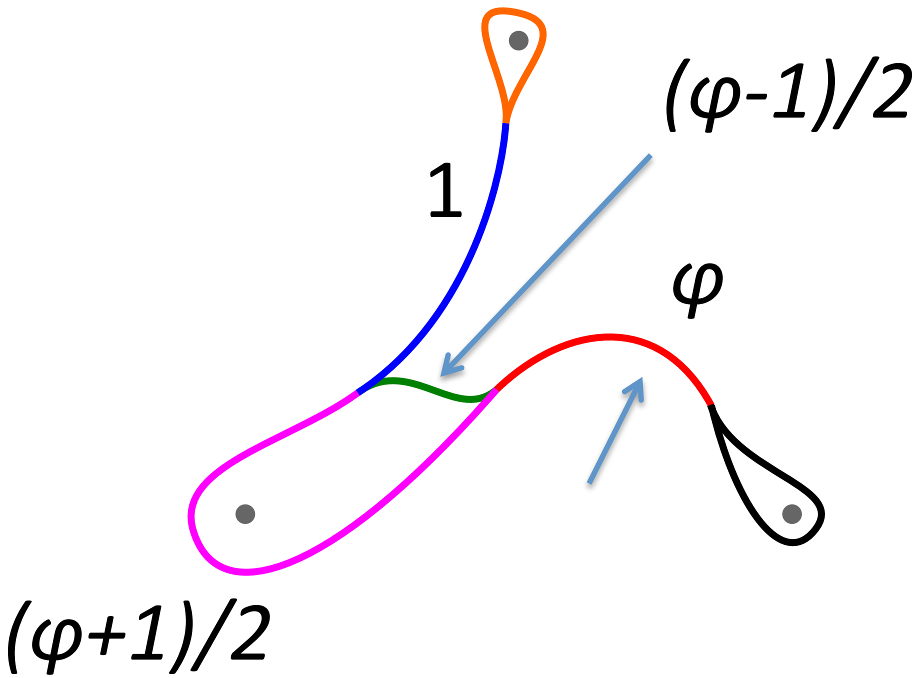

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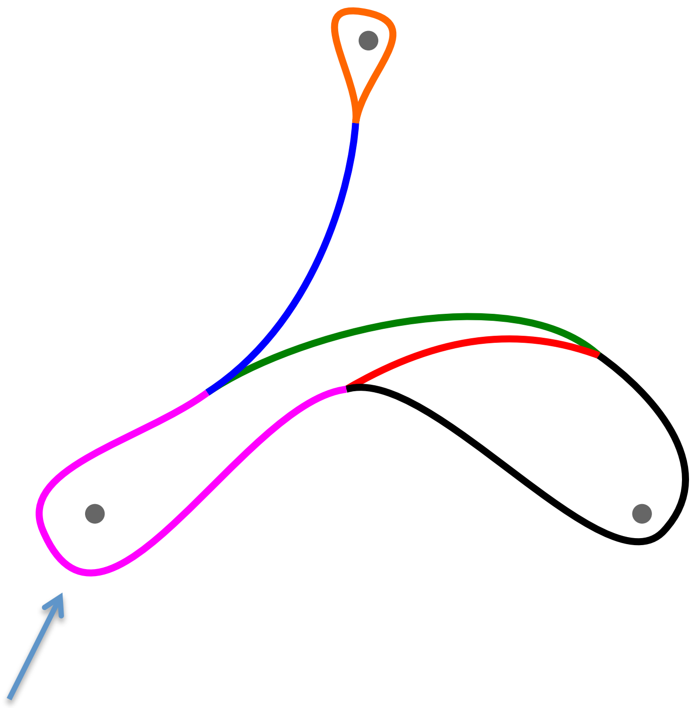

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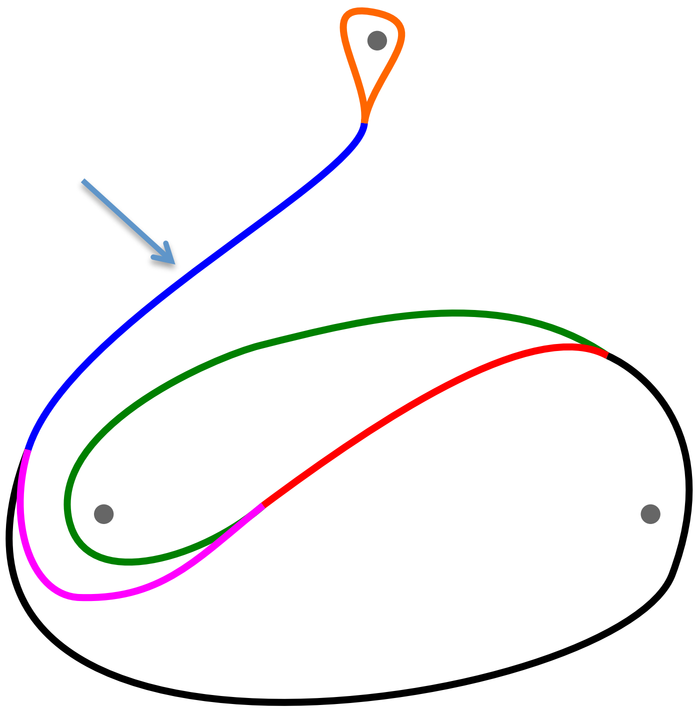

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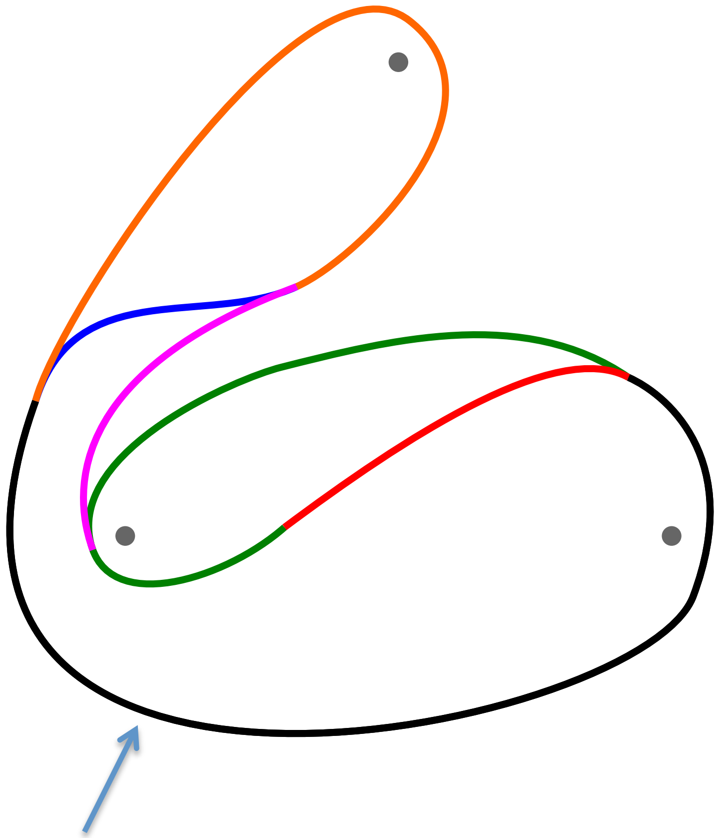

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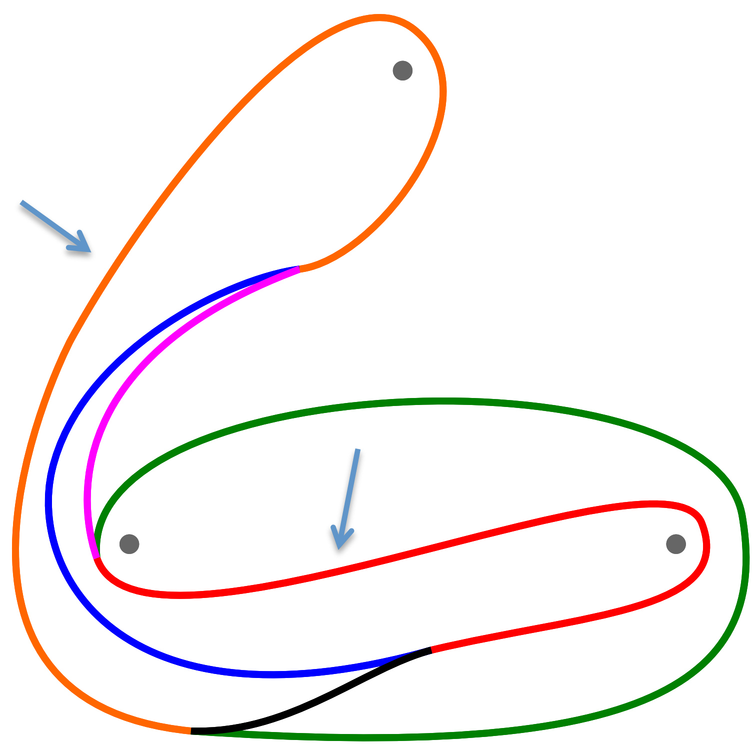
Agol Cycles



We have entered the Agol cycle!

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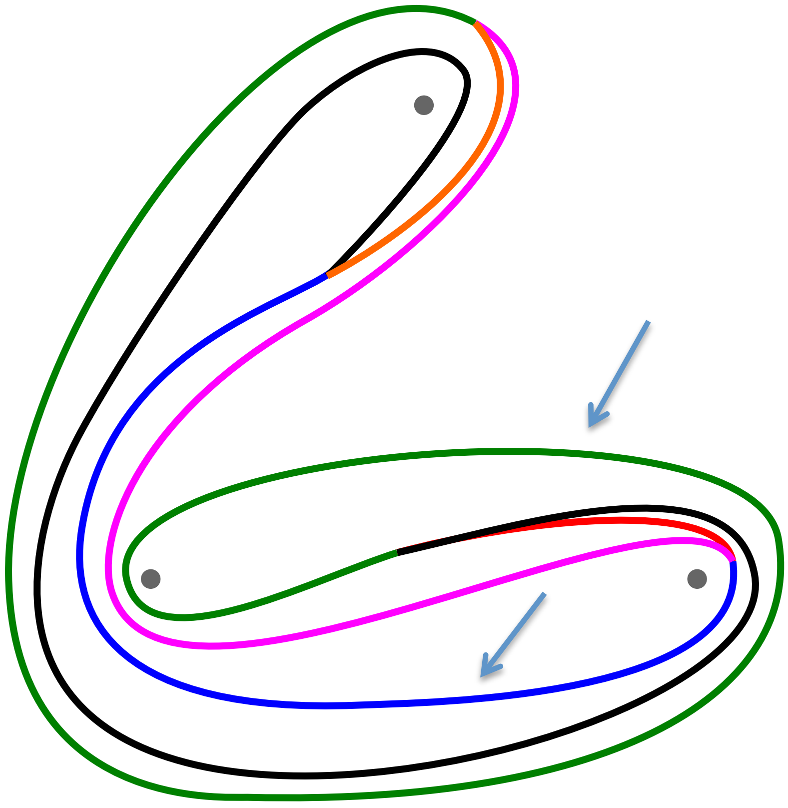
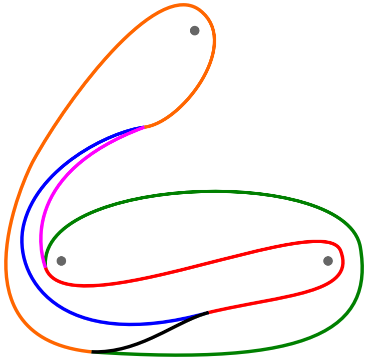
Agol Cycles





In these slides, we saw:

- A precisely-stated theorem
- Math notation that didn't overwhelm
- Many images
- A concrete example
- Animation
- Panache!

Agol Cycles

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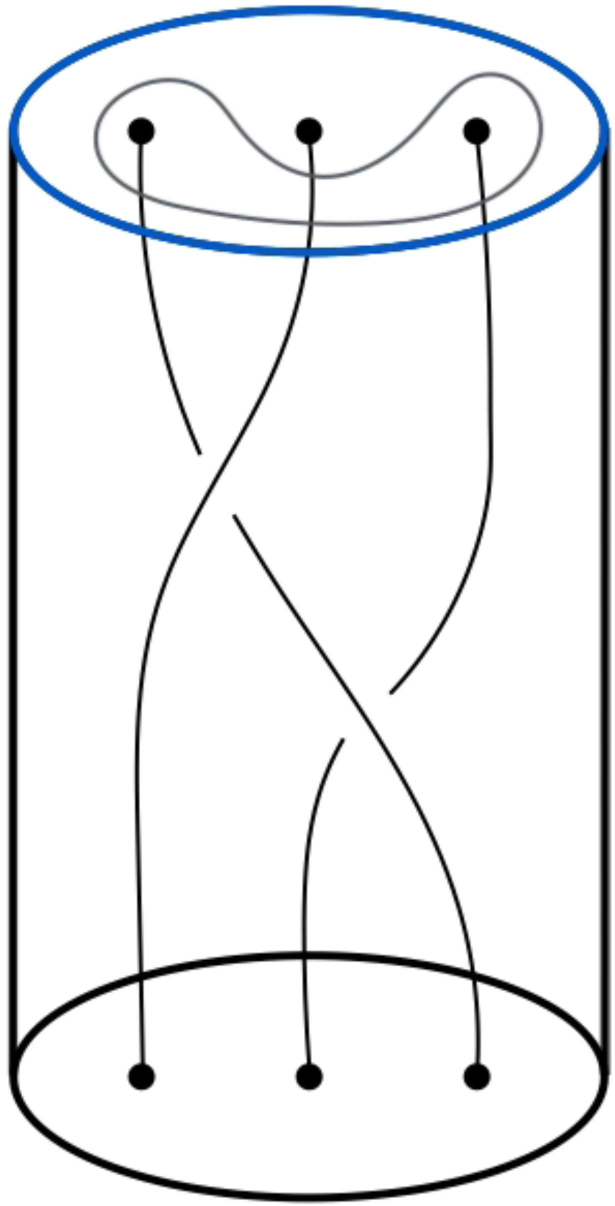
Nick Salter



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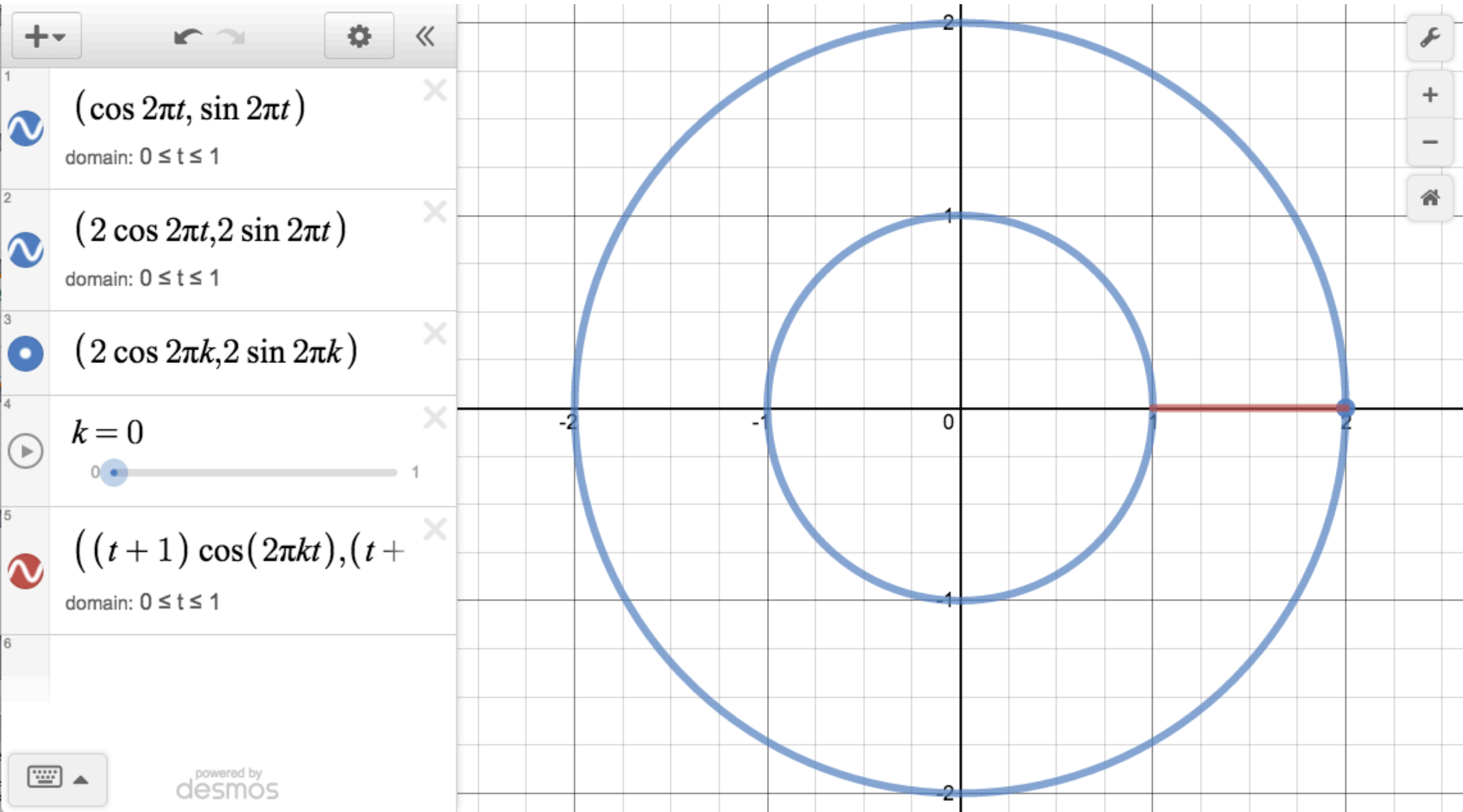
$(\cos 2\pi t, \sin 2\pi t)$
domain: 0 ≤ t ≤ 1
$(2\cos 2\pi t, 2\sin 2\pi t)$
domain: 0 ≤ t ≤ 1
$(2\cos 2\pi k, 2\sin 2\pi k)$
$k = 0$
0
1
$((t+1)\cos(2\pi k t),(t+$
domain: 0 ≤ t ≤ 1
powered by desmos
2
1
-2
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0
1
2
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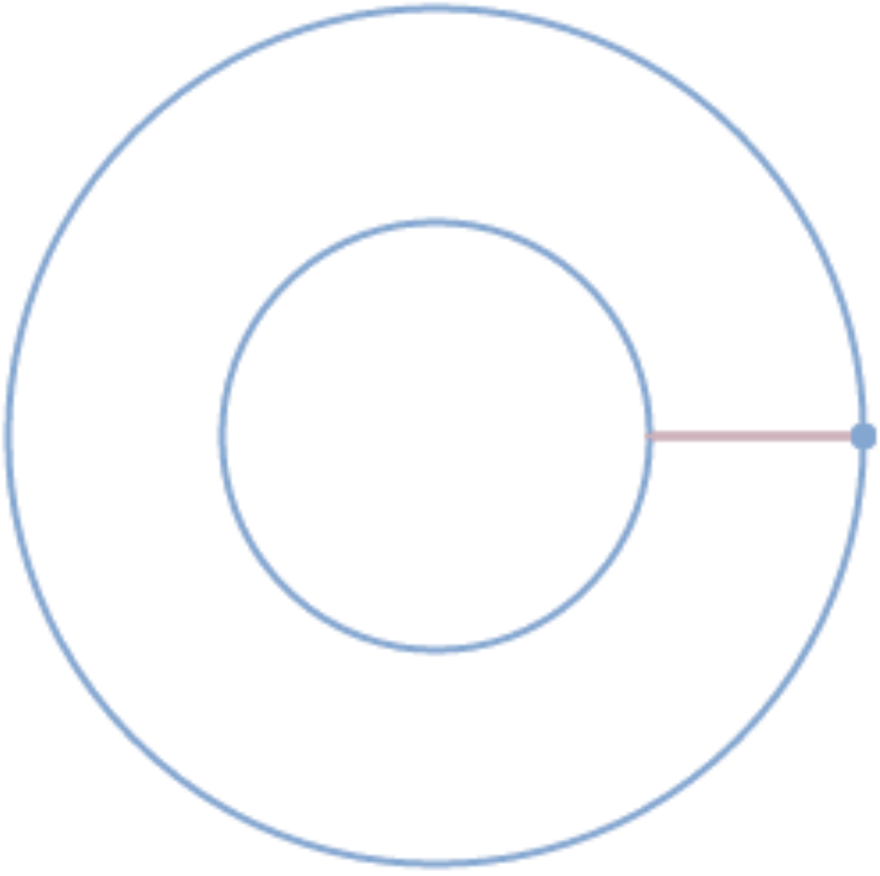
Justin Lanier



gifsmos.com

Sozi