

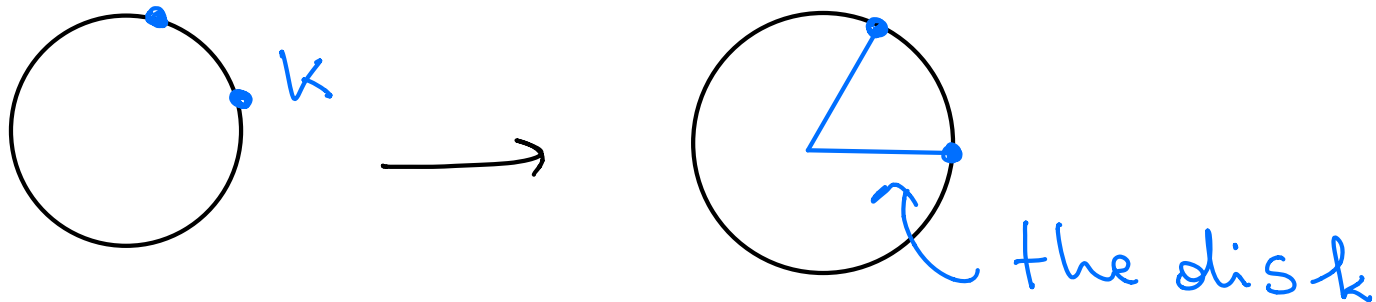
A solution to a conjecture of
Zeeman

(due to Akbulut)

Here, for a PL-embedding $f: D^2 \rightarrow D^2$,
we DON'T require it to be locally flat.

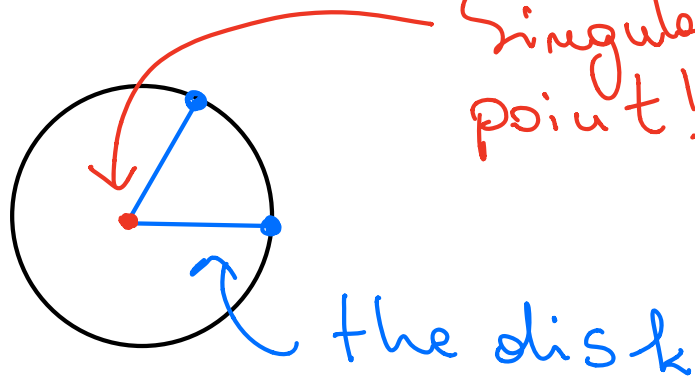
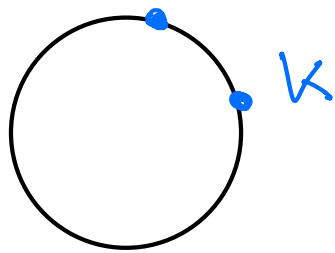
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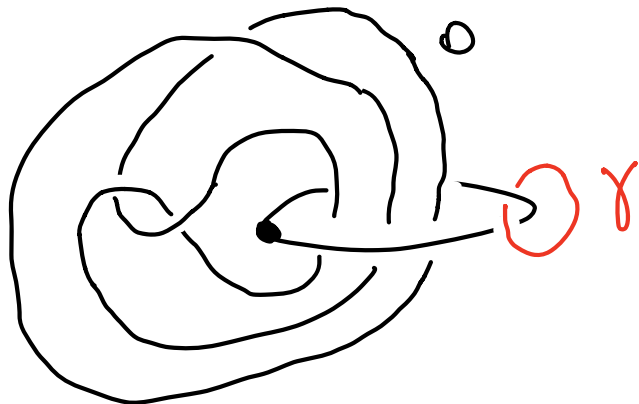
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Zeeman conjecture that this statement does not hold if we substitute D^4 by any contractible manifold.

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In particular, he raised the question for γ in W :



We prove he is right:
 γ does not bound an
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We know that $f(\gamma) = \gamma'$,
which bounds a smooth
disk in W .

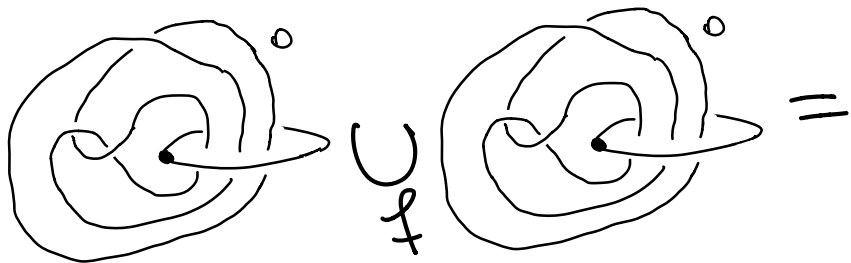
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We can prove it is S^h :

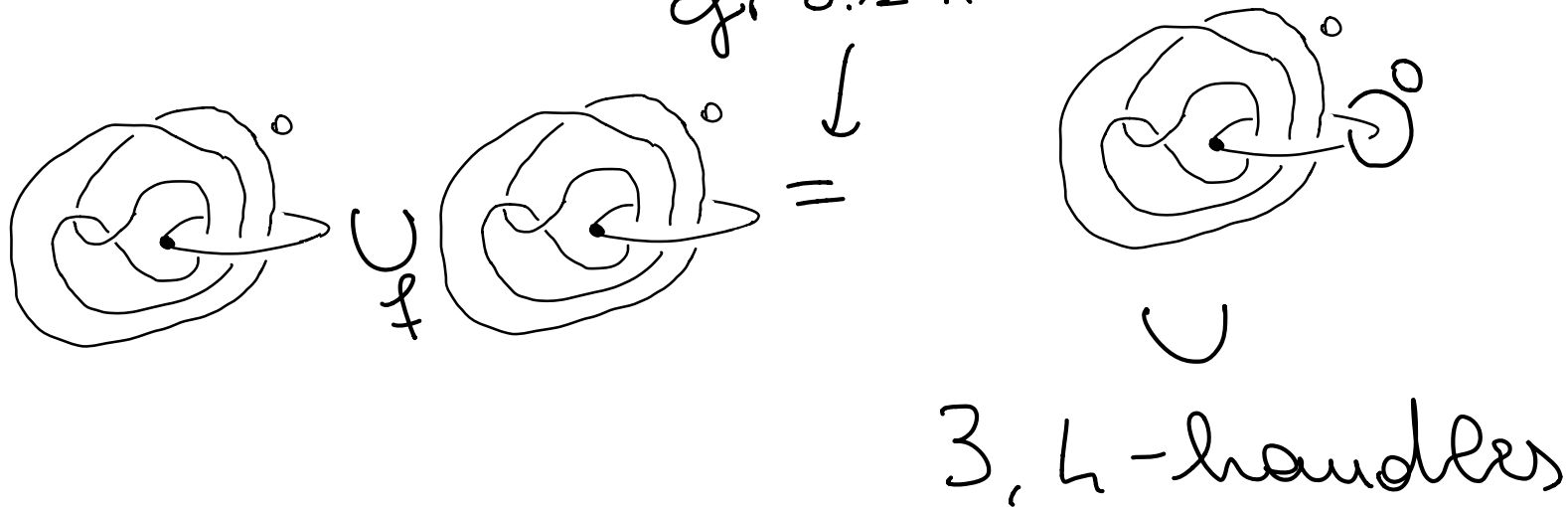
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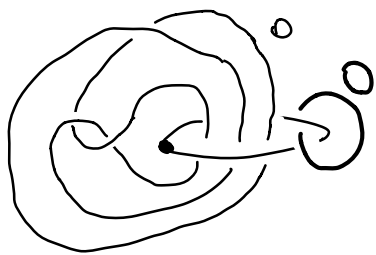
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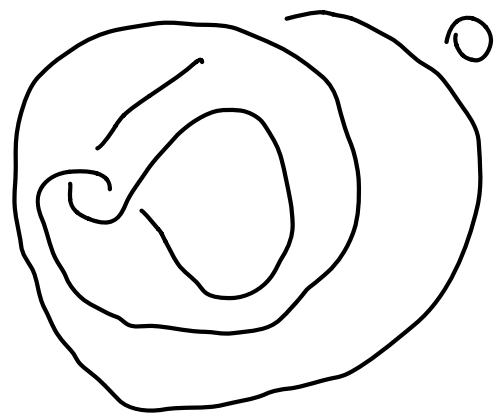
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for 3.1 Akbulut





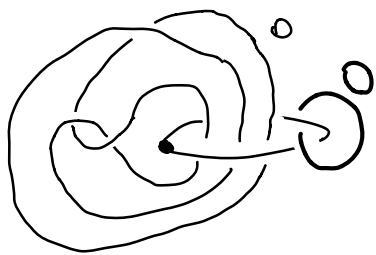
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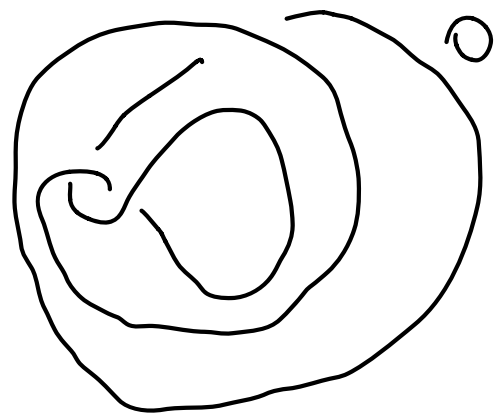
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3, 4-handlers

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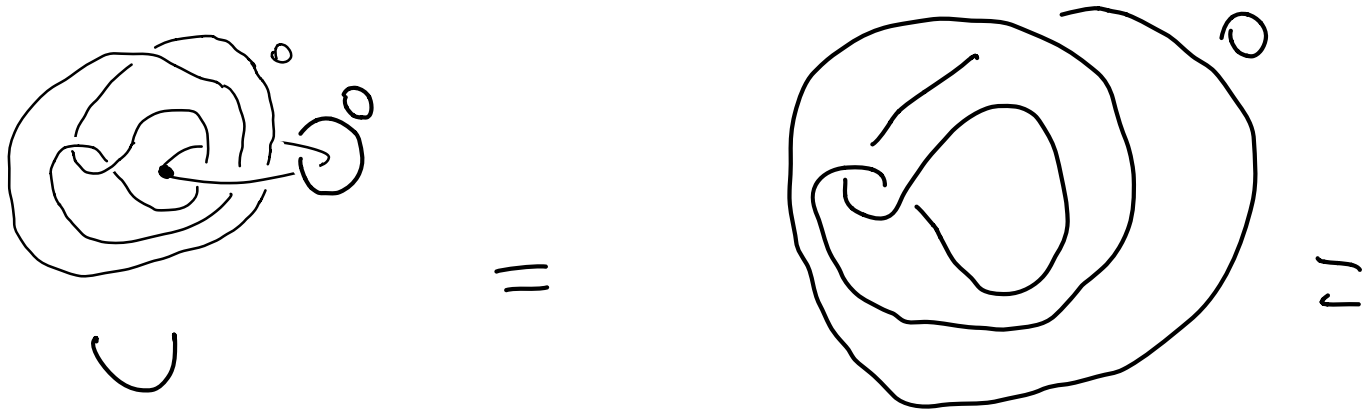
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= $\bigcirc^0 \cup 3, 4\text{-handlers} =$



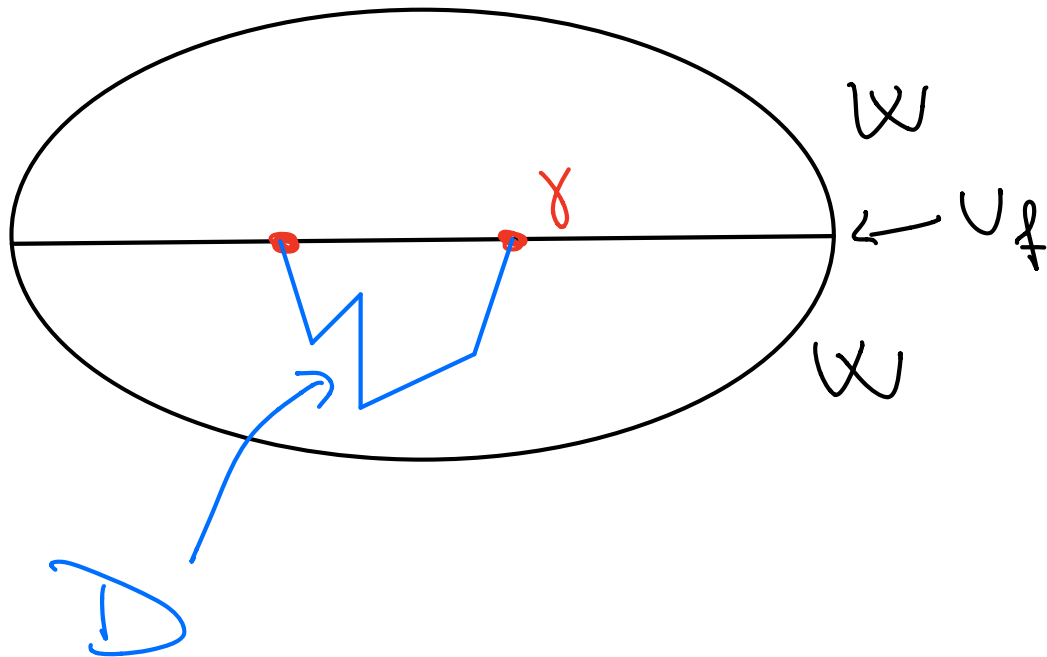
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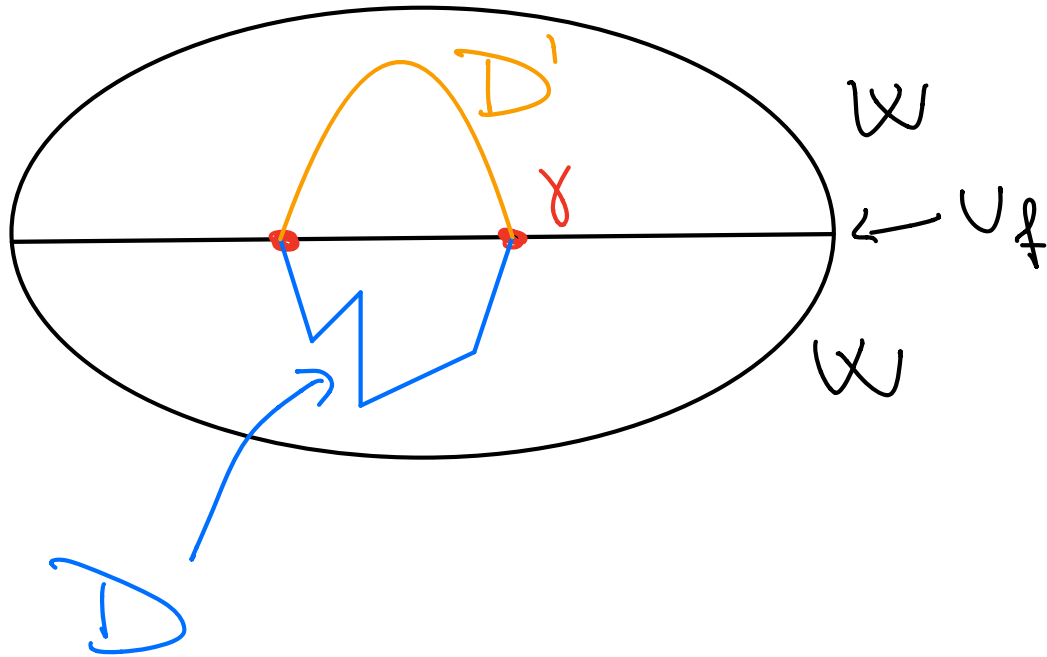
$= \bigcirc^0 \cup 3,4\text{-handlers} = \begin{matrix} \nearrow S^4 \\ \searrow \text{UNICITY} \end{matrix}$

Suppose γ bounds a
PL-embedded disk in U .

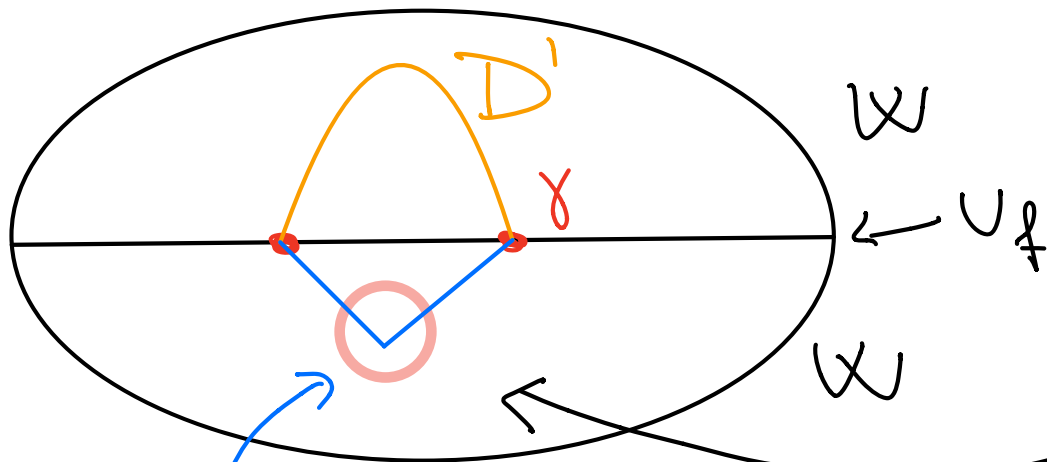
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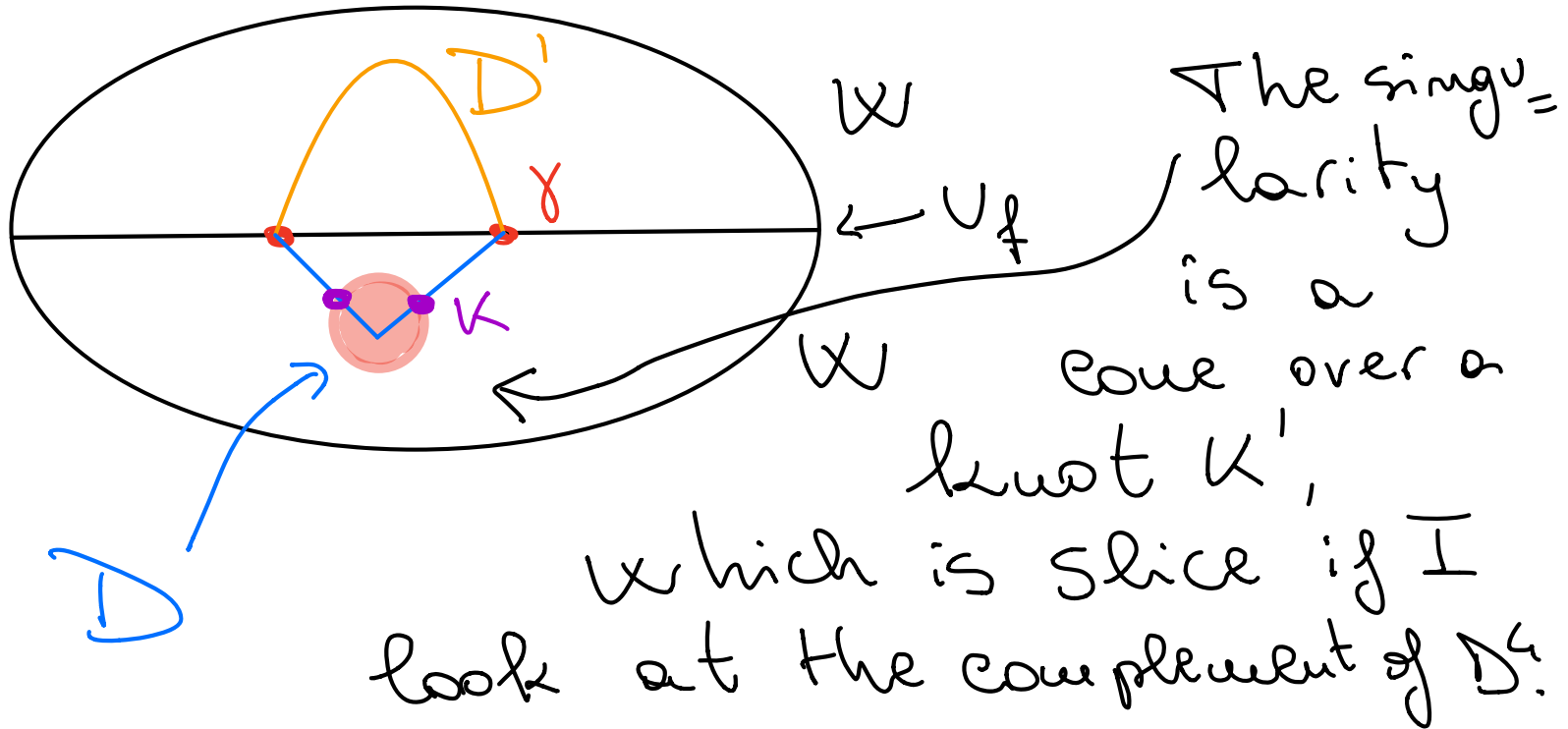


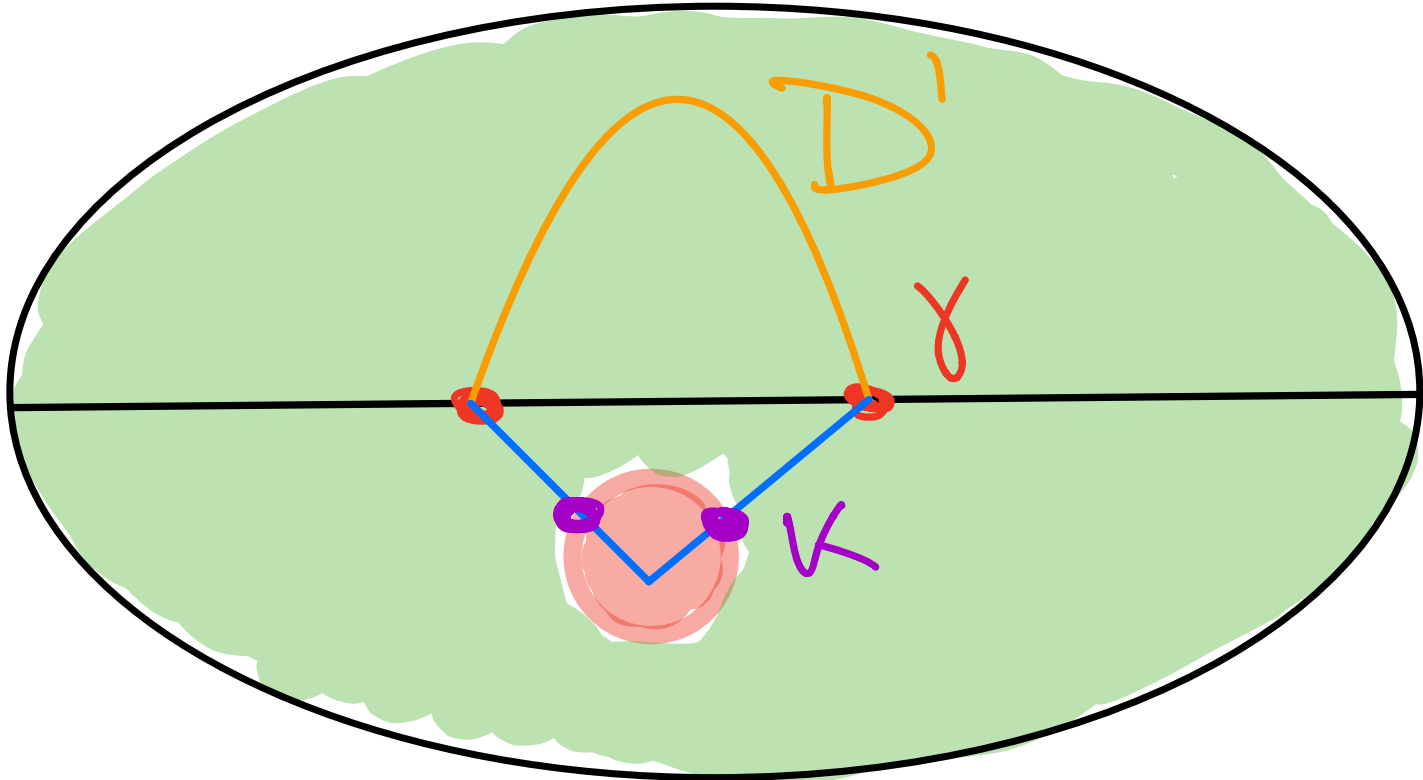
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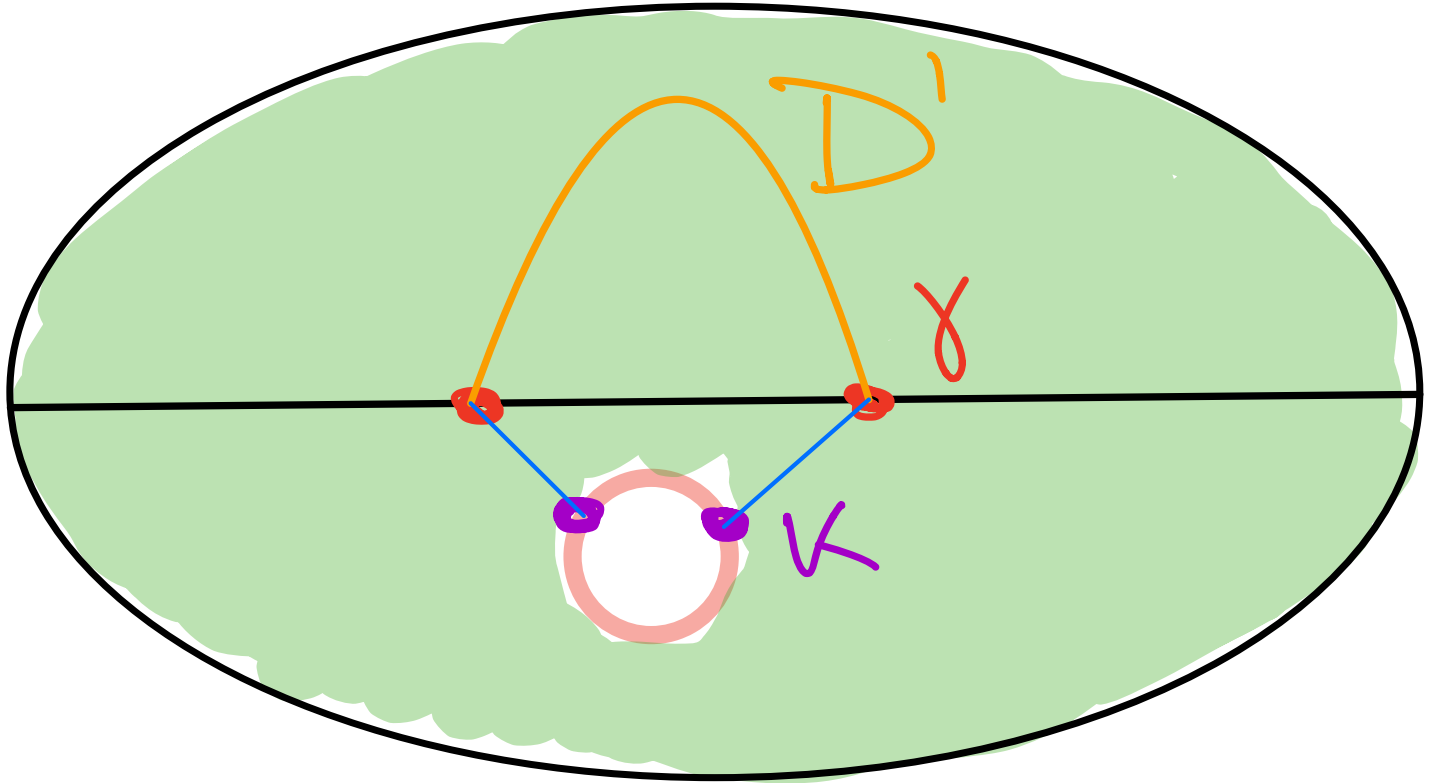


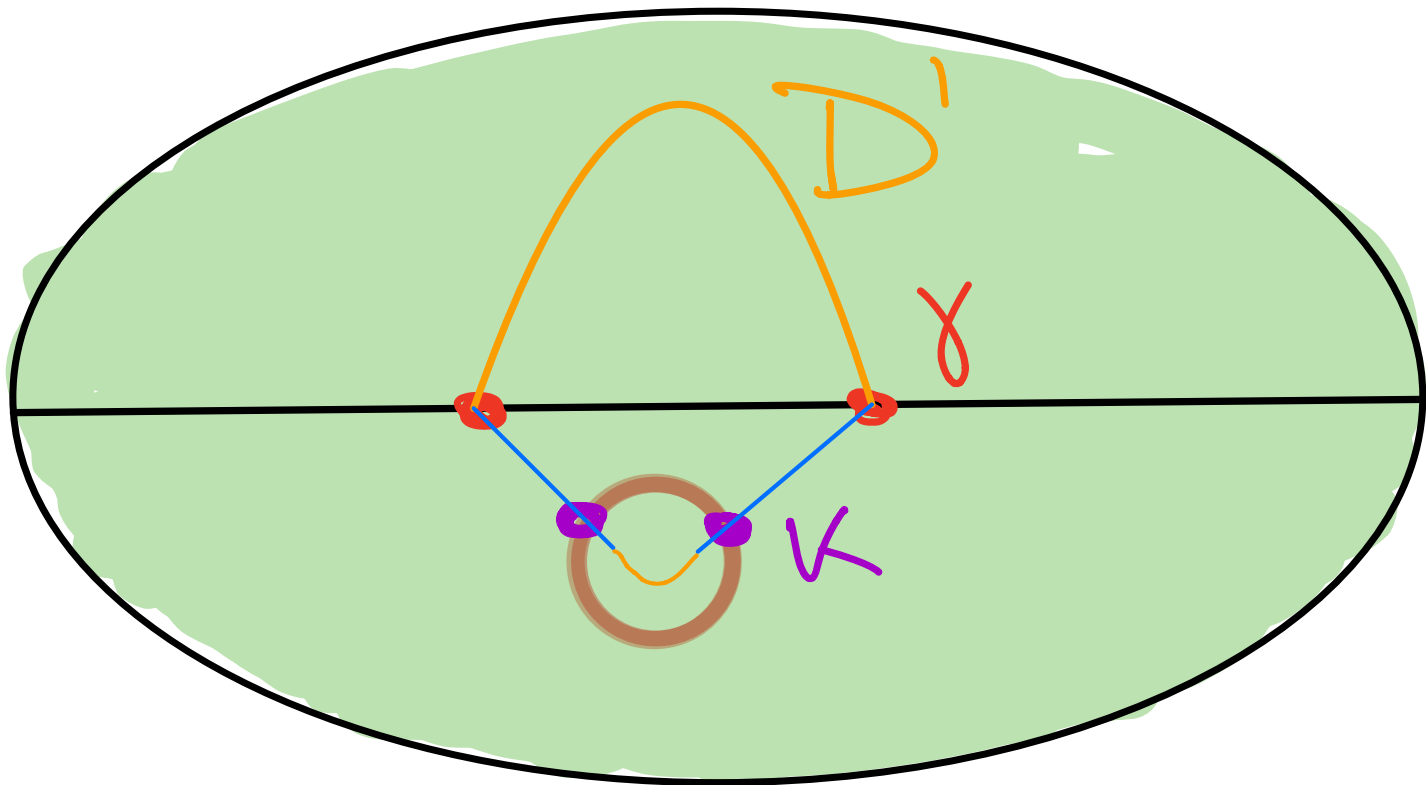
We can
 suppose
 there is
 only 1 singularity
 (cfr Ch. 4 Rourke-Sanderson)

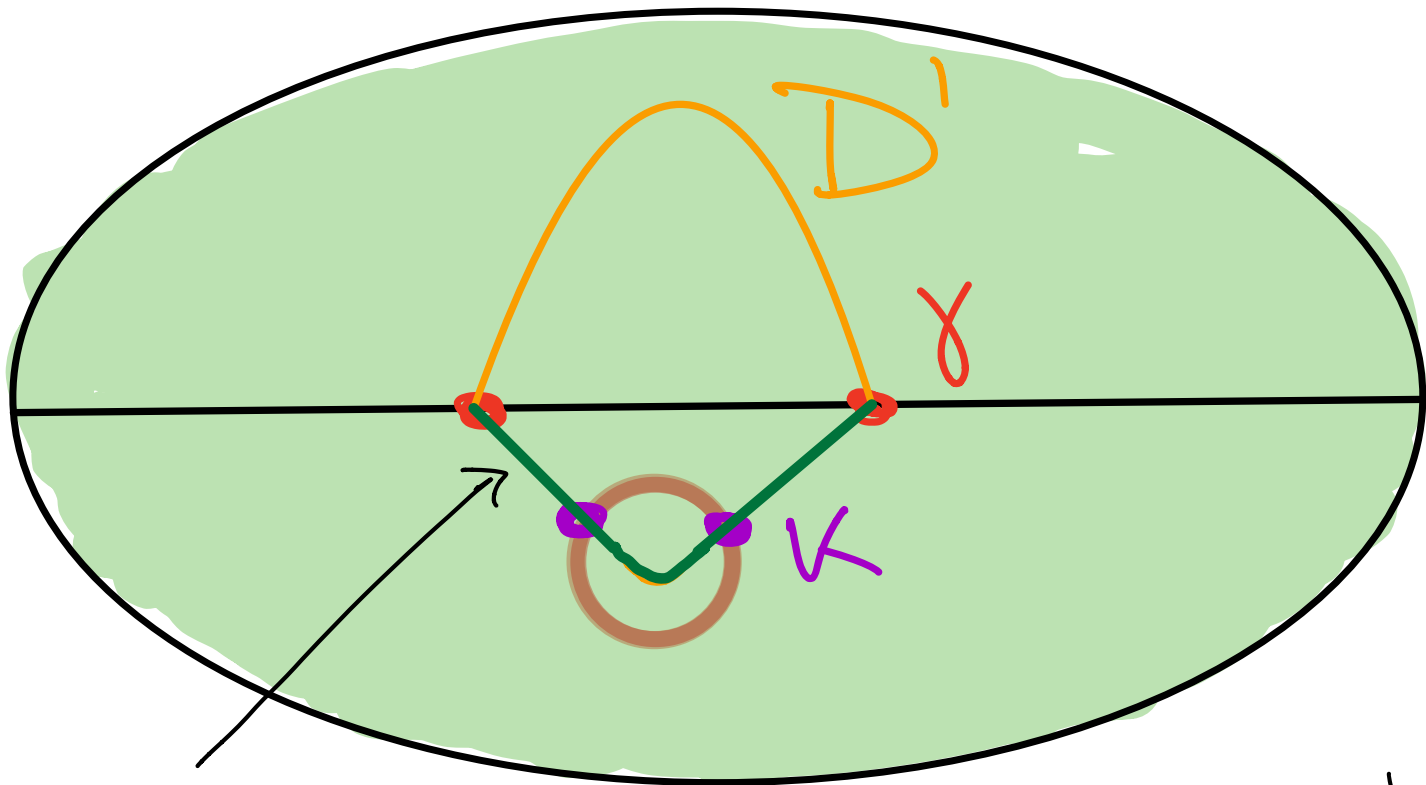
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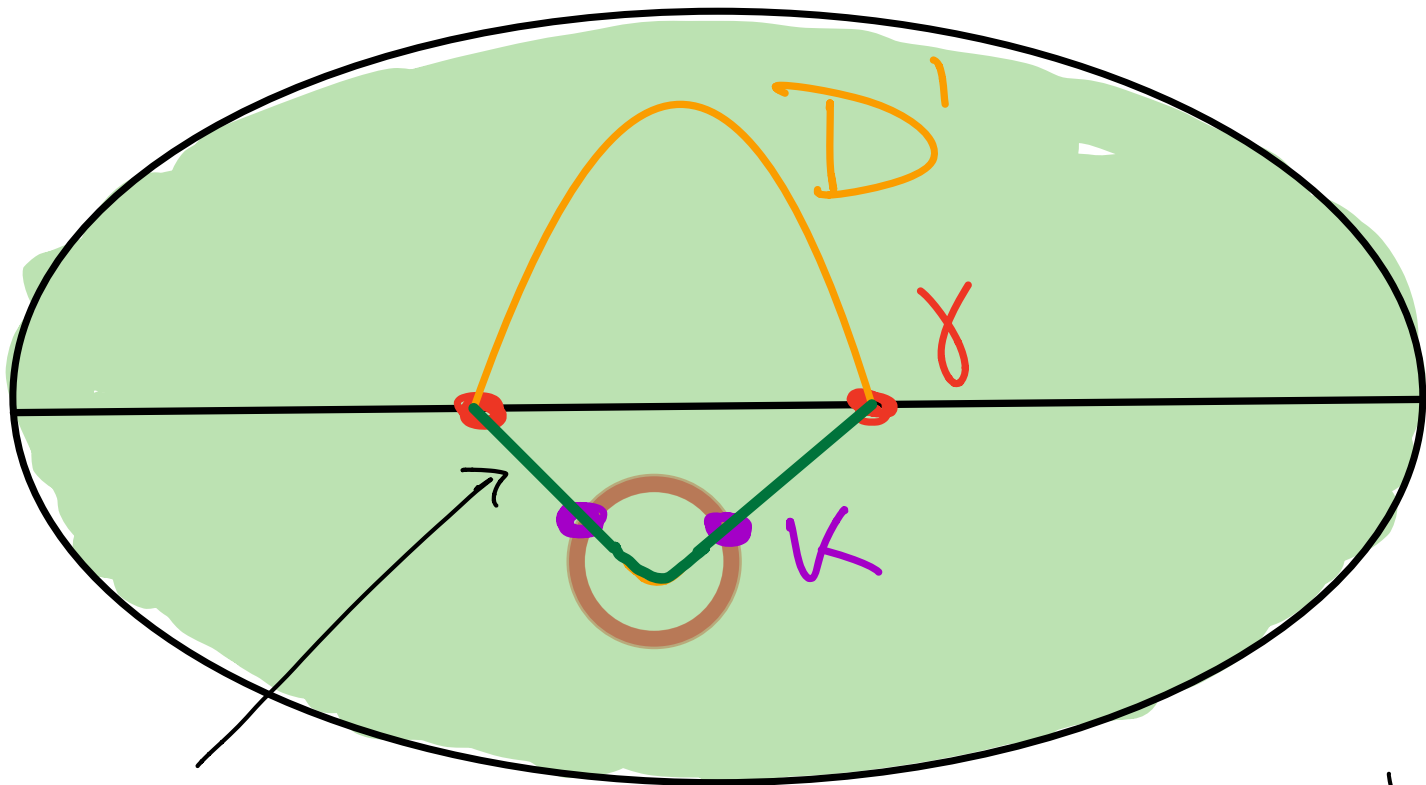








Smooth disk in W bounded by γ !



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