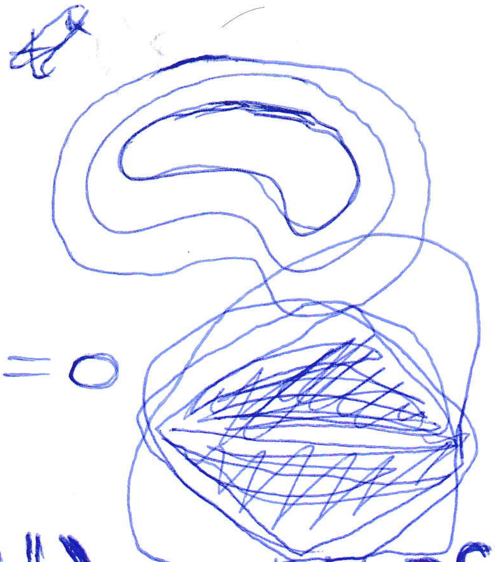
as such   take t^{α} s.t

$\boxed{\delta(t) < \delta \text{ on } B(h)}$

$$u - \frac{1}{2}t^{*}\lambda + \delta(t^{*}) = v$$

~~ten~~



~~$u - \frac{1}{2}t^{2}\lambda$~~

Then $u - \frac{1}{2}t^{*}\lambda + \delta(t^{*}) - v = 0$

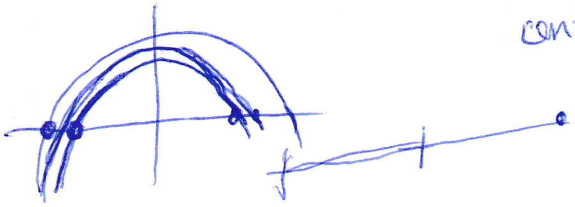
Let $u - \frac{1}{2}t'\lambda = v$, $u - \frac{1}{2}t''\lambda = v - 2\delta$

then claim $t' < t^{*}$

Want The connected component containing the origin.
So once you scale by u, this still gets scaled by u.

need to check this formally.

Lowerbound is (in 1D):



connected component is within $B^{-} \to B^{+}$ as all in $B^{-} > u$, none outside B^{+} (in h) are!

$$-\varepsilon = v - u + \frac{1}{2}t^{2}\lambda \Rightarrow t = \sqrt{\frac{2(u-v-\varepsilon)}{\lambda}}$$

So choose h s.t $\mathbb{P}($ ~~u-h~~ $u - v < h$ well really $\sqrt{\frac{2(u+v-\varepsilon)}{\lambda}} < h$!

holds for high V as $u - v \sim \exp(1)$ so then the connected comp containing the origin is there within $B(h)$!