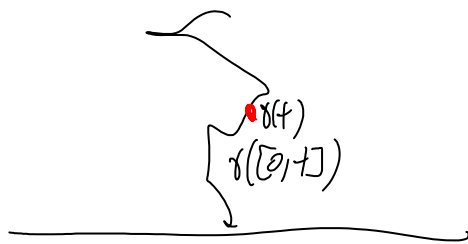
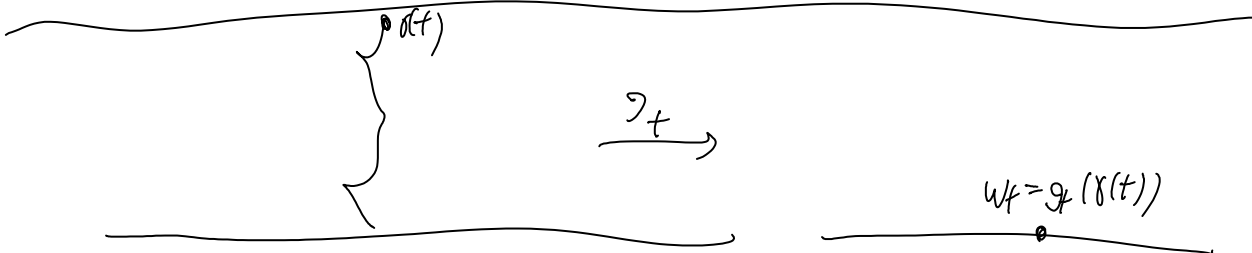


Thm (Schramm) There is only a 1-parameter family indexed by $\kappa \geq 0$ of random cont. non-self crossings curves going from one fixed pt on the boundary of a planar domain to another and satisfying a conformal markov property.

(usually we take the domain to be the upper half plane, and the pts to be 0 & ∞)



the law beyond the red point is equal to the law for the whole, after a conformal map mapping the complement of $x([0,t])$ to the plane.



Loewner's thm

$$\partial_t g_t(z) = \frac{2}{g_t(z) - w_t}$$

SLE_κ : the g_t you get by taking w_t to be

$$B_{\kappa t} = \sqrt{\kappa} B_t \quad (B: \text{Brownian motion})$$

Properties:

SLE_κ is a.s not-self intersecting if $\kappa \in [0, 4]$

If $4 < \kappa < 8$ SLE_κ is self-bouncing

If $4 < k < 8$ SLE_k is self-bounding
if $k \geq 8$ SLE_k is space-filling