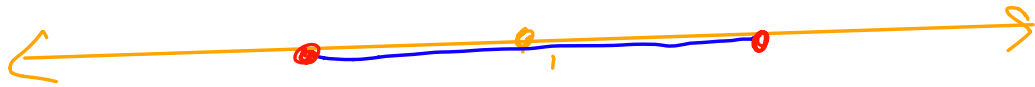
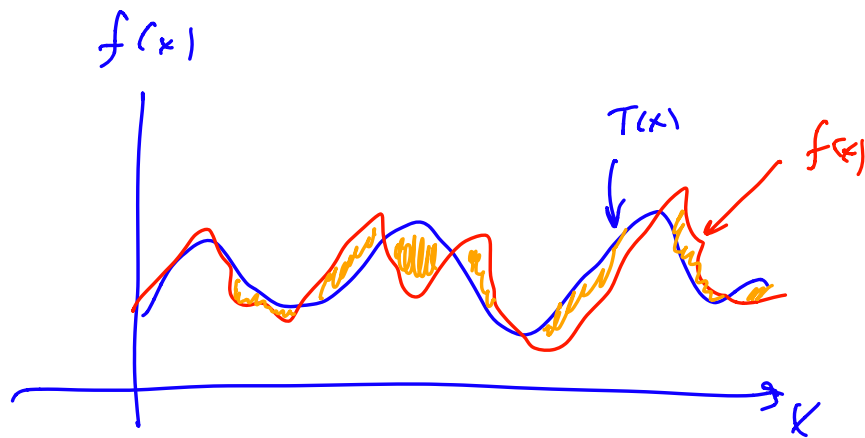


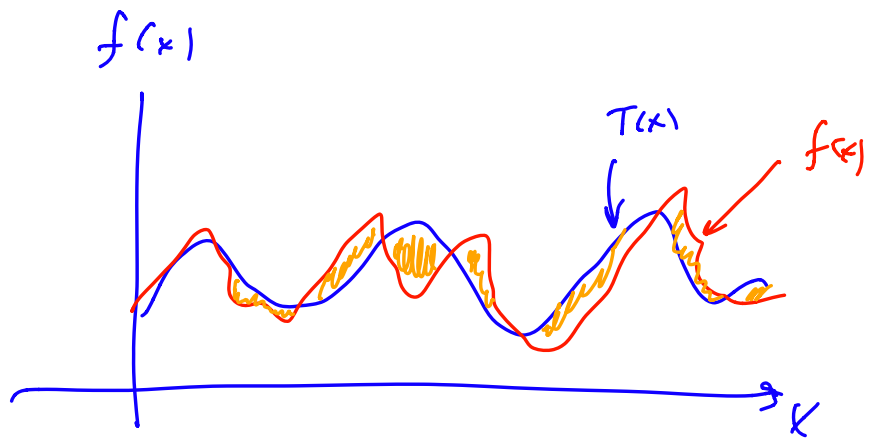
surface 'area' of S^{n-1} is
 just the $n-1$ dimensional volume
 or measure }
 $n-1$ - volume



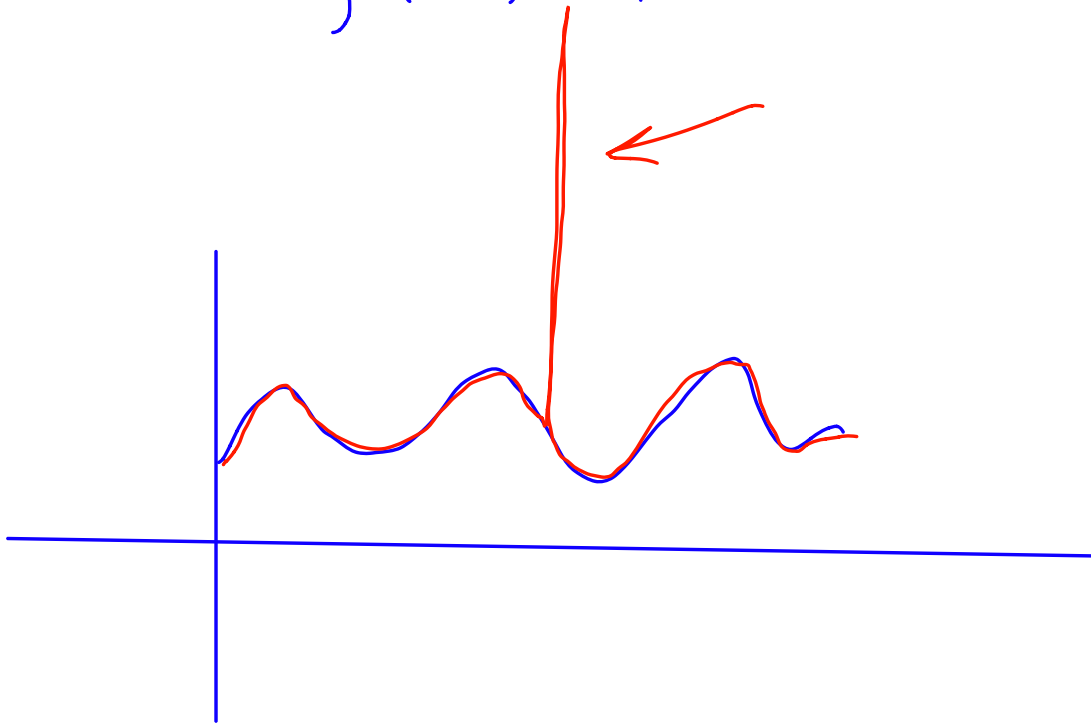
$p = \infty$ → Robust Control
 non-special

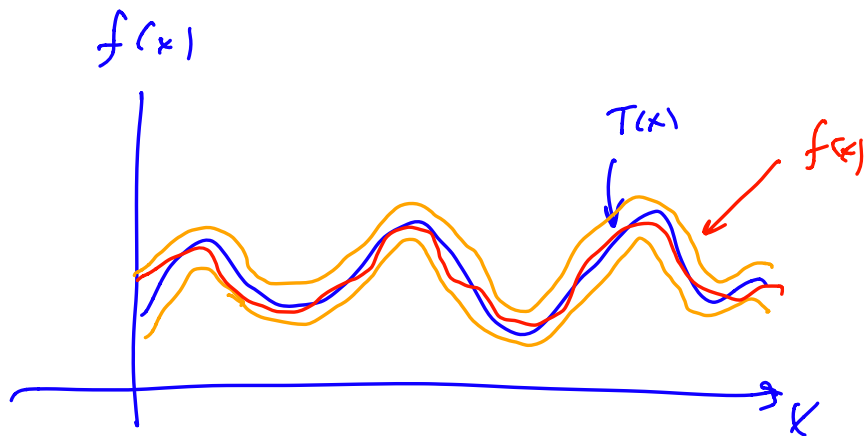


$$\int |T-f| dx$$



$$\int |T-f|^2 dx$$





$$\int_{-\infty}^{\infty} |T - f| dx$$

$$\max_x |T(x) - f(x)|$$

In between races

- Bolt et al paper



little "o"
big "O"

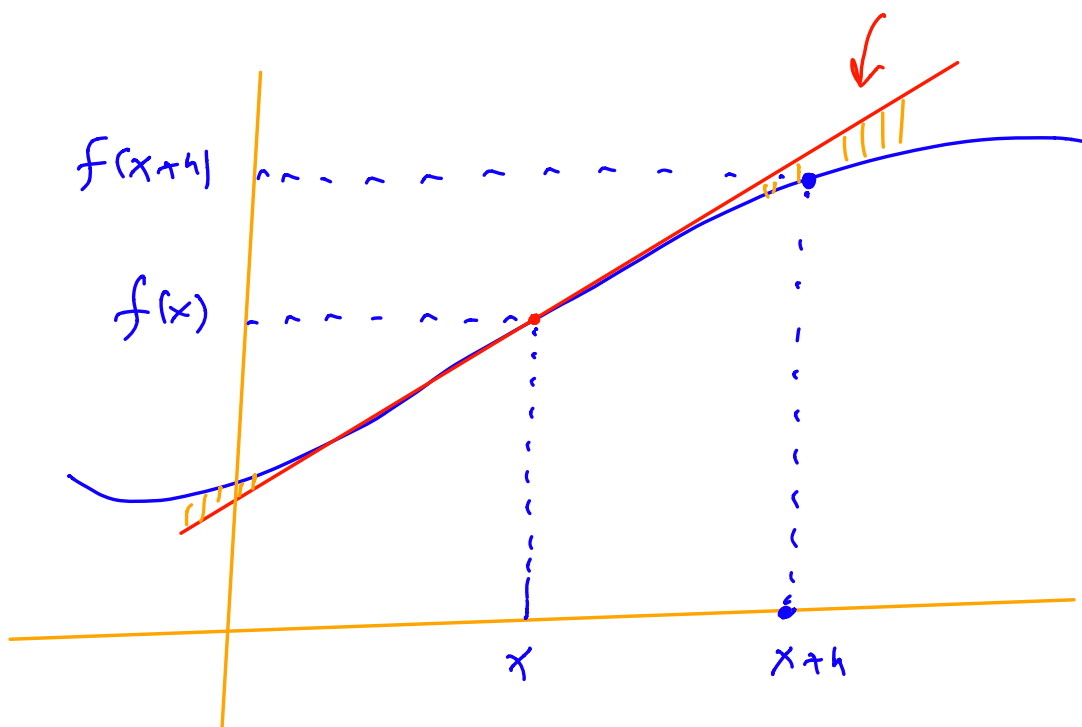
$n \sim n$
 2^n
 e^n

local approximation

$$\Delta_x f(h) \equiv \underbrace{f(x+h) - f(x)}_{\text{local approximation}} = \underbrace{L_x(h)}_{D_x f(h)} + \underbrace{g(h)}$$

$g(h) \sim o(h)$
i. e.
$$\frac{|g(h)|}{|h|} \rightarrow 0 \quad |h| \rightarrow 0$$

$g(h) \sim O(h)$
i. e.
$$\frac{|g(h)|}{|h|} < C < \infty \quad |h| \rightarrow 0$$



$$f(x+h) \approx \underbrace{f(x)} + \underbrace{L_x(h)}$$

