

The  $b_k(z)$  are polynomials in  $z$ ,

$$1[\|z/x\| > \eta]$$

~~Print  
Lined!~~

So  $\int b_k(z)$

can write

$$\int p(x) \int 1[\|z/x\| > \eta] 1[x > \nu] \left| \det \left( z - \frac{x \wedge}{0z} \right) \right| dp(z) dx$$

on  $1[x > \nu]$ , ~~if  $x > \nu$~~   $|x| < \frac{1}{\nu}$ .

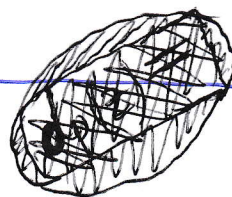
( $\nu > 0$ )

$$\Rightarrow \left\| \frac{z}{x} \right\| < \left\| \frac{z}{\nu} \right\|$$

$$\Rightarrow \left\| \frac{z}{x} \right\| > \eta \Rightarrow \left\| \frac{z}{\nu} \right\| > \eta.$$

$$\Rightarrow 1[\|z/x\| > \eta] \leq 1[\|z/\nu\| > \eta]$$

$$\leq \int p(x) \int 1[\|z/\nu\| > \eta] dp(z) dx$$



$$e^{-z^T z}$$

$$\int_{\nu}^{\infty} p(x) \int 1[\|z/\nu\| > \eta] \sum_{k=0}^D |b_k(z)| x^k dp(z) dx$$

$$\leq \int_{\nu}^{\infty} p(x) \int_{\|z/\nu\| > \eta} \frac{dd(\eta)}{2D} x^D dp(z) dx.$$

$$+ \int_{\nu}^{\infty} \int_{\mathbb{R}^{D(n+1)/2} \rightarrow \text{real!}} \sum_{k=0}^{D-1} |b_k(z)| x^k dp(z) dx.$$