4

$$\int_{t=0}^{1/2} \int_{h=x+\frac{1}{2}t^2\lambda}^{\infty} \underbrace{p(h,t)}\, dh\, dt$$

h, t independent

so $p(h,t) = p(h)p(t)$

$$= \int_{t=0}^{1/2} \underbrace{\mathbb{P}(h > x + \tfrac{1}{2}t^2\lambda)}\, dt$$

have EC approx to this.

$$\approx \int_{t=0}^{1/2} \sum_{d=0}^{D} \mathcal{L}_d\, \underbrace{\rho_d(x + \tfrac{1}{2}t^2\lambda)}\, dt$$

these are known f^n's in t so can integrate them!

$$\approx \sum_{d=0}^{D} \mathcal{L}_d \int_{t=0}^{1/2} \rho_d(x + \tfrac{1}{2}t^2\lambda)\, dt$$

Need to add bounds on how good this approx is.

and results on how things improve at bd size $\to 0$,

and/or smoothness increases.