

$$\forall \varepsilon > 0 \quad \mu(\varepsilon) \geq 1 \iff \sup_{\partial B} f > \sup_B f - \varepsilon$$

$$\mathbb{P}(\nabla^2 X(t_0) < \delta \mid \sup_{\partial B} f > \sup_B f)$$

Can you relate # of max  
for t-field to # of  
maxima for Gaussian  
fields?

Claim:  $\mathbb{P}(\nabla^2 X(t_0) \leq \delta \mid \mu) = 1$

WTS:  $\mathbb{P}(\nabla^2 X(t_0) < \delta \mid \mu) \rightarrow 0$   
as  $\delta \rightarrow 0$

Suppose not then  $\exists \alpha > 0$  s.t.  $\forall \delta$ .

$$\text{s.t. } \mathbb{P}(0 < \nabla^2 X(t_0) < \delta \mid \mu) > \alpha$$