



BRITISH EMBASSY
BELGRADE

need to condition on $\nabla f(t) = 0$
as not independent
of $\nabla^2 f(t)$.

$$\int_T \mathbb{E} \left[\frac{|\nabla^2 f(t)|}{\mathbb{I}[\nabla^2 f(t) \in D]} \right] p_t(u) dt$$

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$$\nabla^2 f(t) | \nabla f(t) = 0 \stackrel{=0}{=} \nabla^2 f(t) \sim N(0, K(t))$$

more $\nabla^2 y \sim N(0, I)$

$$\int \det(K(t)) \mathbb{E} \left[\det \nabla^2 y | \mathbb{I}[\nabla^2 f(t) \in D] \right] p_t(u) dt$$

$$= \mathbb{E} \left[\det \nabla^2 y | \mathbb{I}[\] \right] p_t \int \det K(t) p_t(u) dt$$

similarly for critical points.

so true for
non-static fields