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<u>WTS:</u> $\mathbb{P}\big(| \nabla^2 X(\tau) / u +$

$$\mathbb{P}\left(\left| \nabla^2 X(\tau) / X(\tau) + \Lambda(\tau) / \sigma^2 \right| > \varepsilon \;\middle|\; \mathcal{M}^v(\tau) \right)$$

$$= \lim_{\substack{\cancel{\varepsilon \to 0} \\ r \to 0}} \frac{\mathbb{P}\left(\left\{ \left| \frac{\nabla^2 X(\tau)}{X(\tau)} + \frac{\Lambda(\tau)}{\sigma^2} \right| > \varepsilon \right\},\ \mathcal{M}^{v}\big(B_r(\tau)\big)_{f(t_0) > v} \right)}{\mathbb{P}\left(\mathcal{M}^v\big(B_r(\tau)\big)_{f(t_0) > v} \right)}$$

↳ note dan has calculated this already.

$\varepsilon \to \eta$

~~Numerator~~

$$= \lim_{r \to 0} \frac{\mathbb{E}\left[\mu_k\big(B_\eta(\tau)\big)\, \mathbb{1}\left[\left| \frac{\nabla^2 X(\tau)}{X(\tau)} + \frac{\Lambda(\tau)}{\sigma^2} \right| > \eta \right] \right] + o(\varepsilon^N)}{\mathbb{E}\left[\mu_k\big(B_\eta(\tau)\big) \right] + o(\varepsilon^N)}$$

<u>Numerator:</u> $\mu_m\big(B_\eta(\tau)\big)\, \mathbb{1}\left[\left| \frac{\nabla^2 X(\tau)}{X(\tau)} + \frac{\Lambda(\tau)}{\sigma^2} \right| > \eta \right]$

<u>Berents Mahai</u> ash Tom