$$\cancel{\hat{z}_{t,s} = \frac{f''(t^*) - f''(t)}{|s-t|^\eta}}$$

$$z_{t,s} = \frac{f'(s) - f'(t) - f''(t)(s-t)}{|s-t|^{1+\eta}}$$

$e_{t,s}$ $e_{t,r}$

$$\det \operatorname{cov}(A, kB) = \det(k \operatorname{cov}(A,B))$$

$$\cancel{= k^{2N} \det \operatorname{cov}(A,B)}$$

$\cancel{2N \text{ as } \operatorname{cov}(A,B) \in \mathbb{R}^{2N \times 2N}!}$

$$\operatorname{cov}\begin{pmatrix} A \\ kB \end{pmatrix} = \begin{pmatrix} \operatorname{cov}(A) & \operatorname{cov}(A,kB) \\ \operatorname{cov}(kB,A) & \operatorname{cov}(kB) \end{pmatrix}$$

$$\det\begin{pmatrix} a & kb \\ kc & k^2 d \end{pmatrix} = k^2 ad - k^2 bc$$

$$= k^2(ad - bc)$$

$$\det\begin{pmatrix} A & kB \\ kC & k^2 D \end{pmatrix} = k^{2N} \cancel{\det\begin{pmatrix} A & B \\ C & D \end{pmatrix}}?$$

$$= \cancel{\det} \quad = k^{2N} \det\begin{pmatrix} A & B \\ C & D \end{pmatrix}$$

can see by writing out the $\sum_{\sigma \in S_n}$ det def^n!