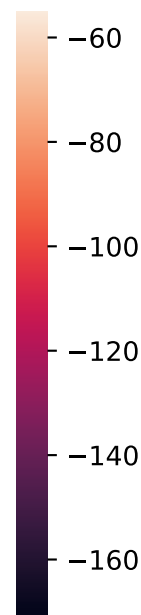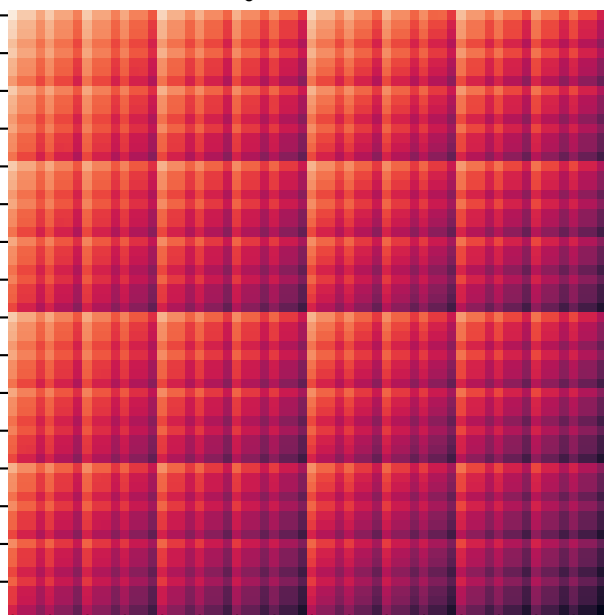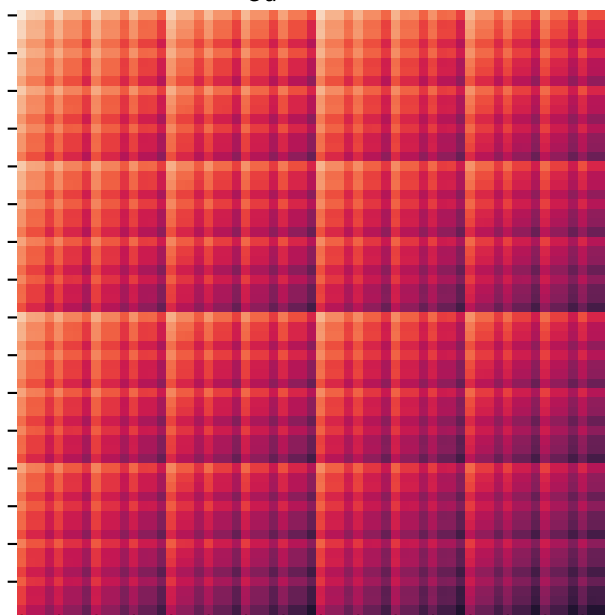**Estimated matrices for $L = 10^3$ at $L_c = L_i = 2$**
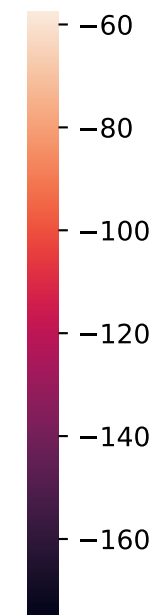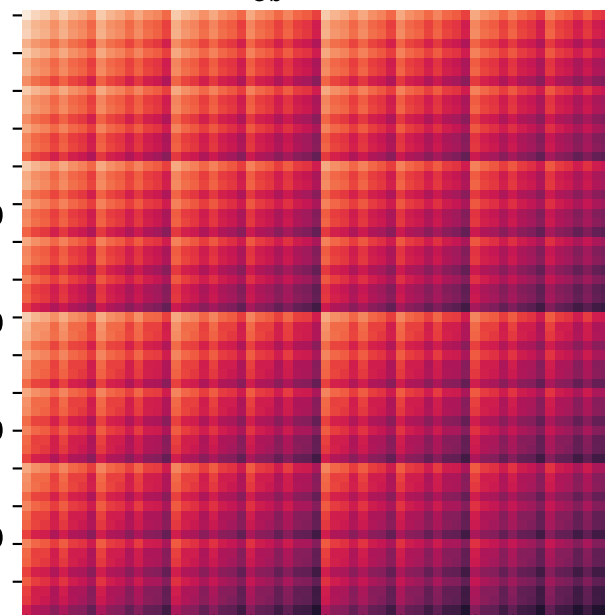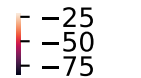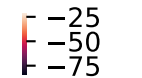
$\hat{F}_0^{I,J}$, rank 7

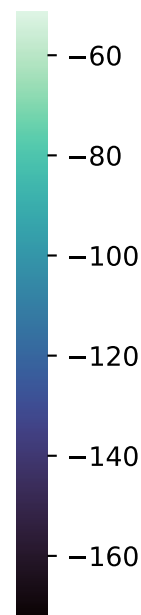$\hat{F}_{Oa}^{I,J}$, rank 8

$\hat{F}_{Ob}^{I,J}$, rank 6

Row Vector

Column Vector $(^T)$

Estimated matrices for $L = 10^5$ at $L_c = L_i = 2$

$\hat{F}_0^{I,J}$, rank 7

$\hat{F}_{Oa}^{I,J}$, rank 7

$\hat{F}_{Ob}^{I,J}$, rank 4
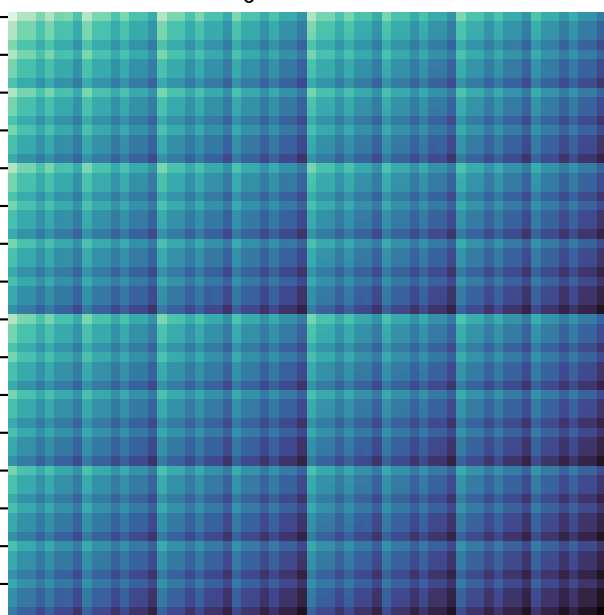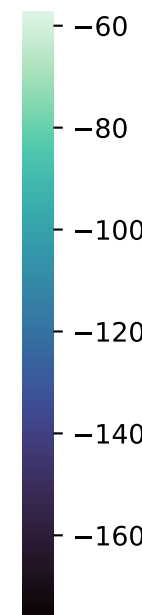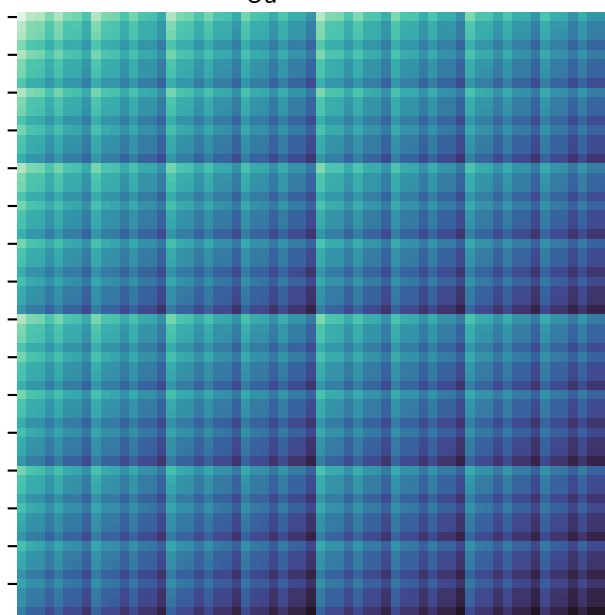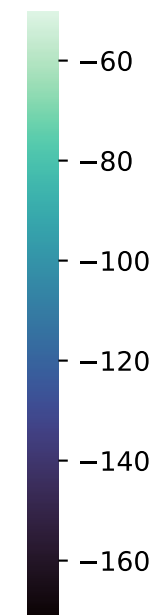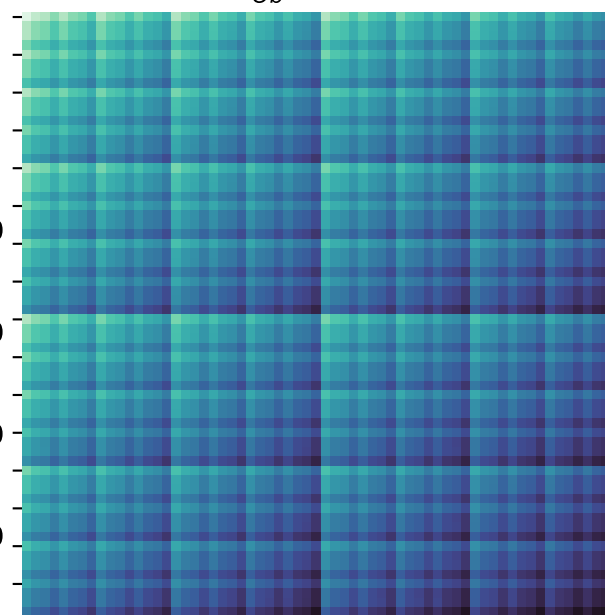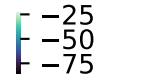
Row Vector

Column Vector $(^T)$