Report: Exploring Non-Parametric Entropy Estimators and Bootstrap Enhancements

Mean Entropy for Estimators

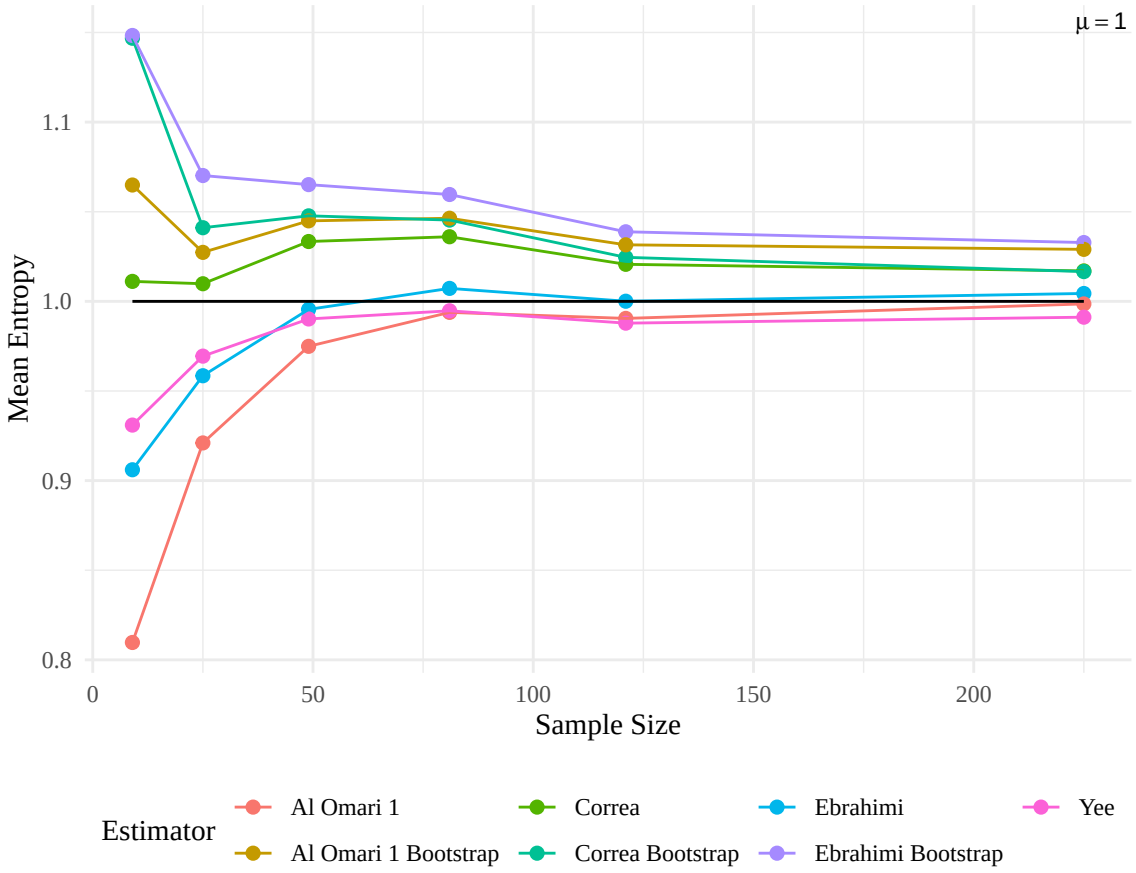

Figure 1: Mean entropy for Gamma SAR $L = 1$ and $\mu = 1$.

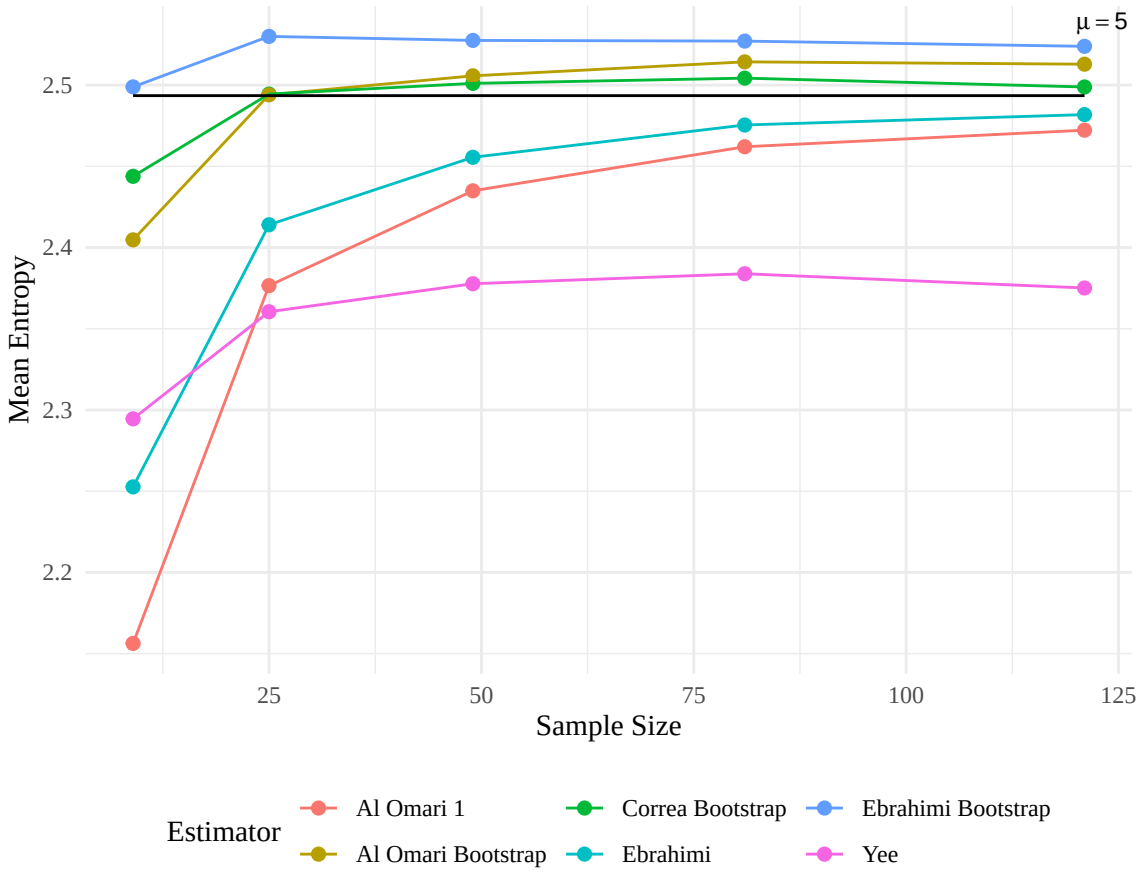

Figure 2: Mean entropy Gamma SAR for $L = 2$ and $\mu = 5$.

Results for Nonparametric Estimators with $\mathcal{G}_I^0$

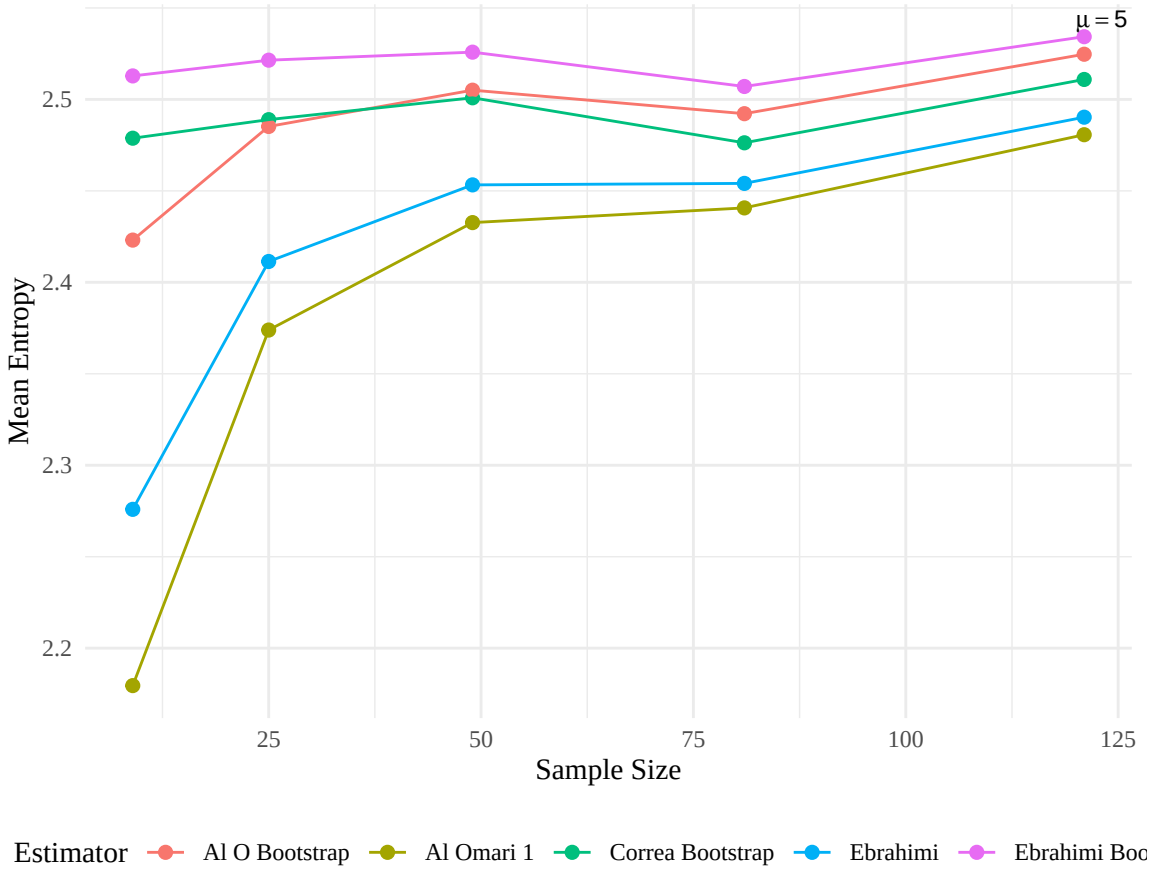

Figure 3: Mean entropy for GI0, with $L = 2$, $\mu = 5$ and $\alpha = -300$.

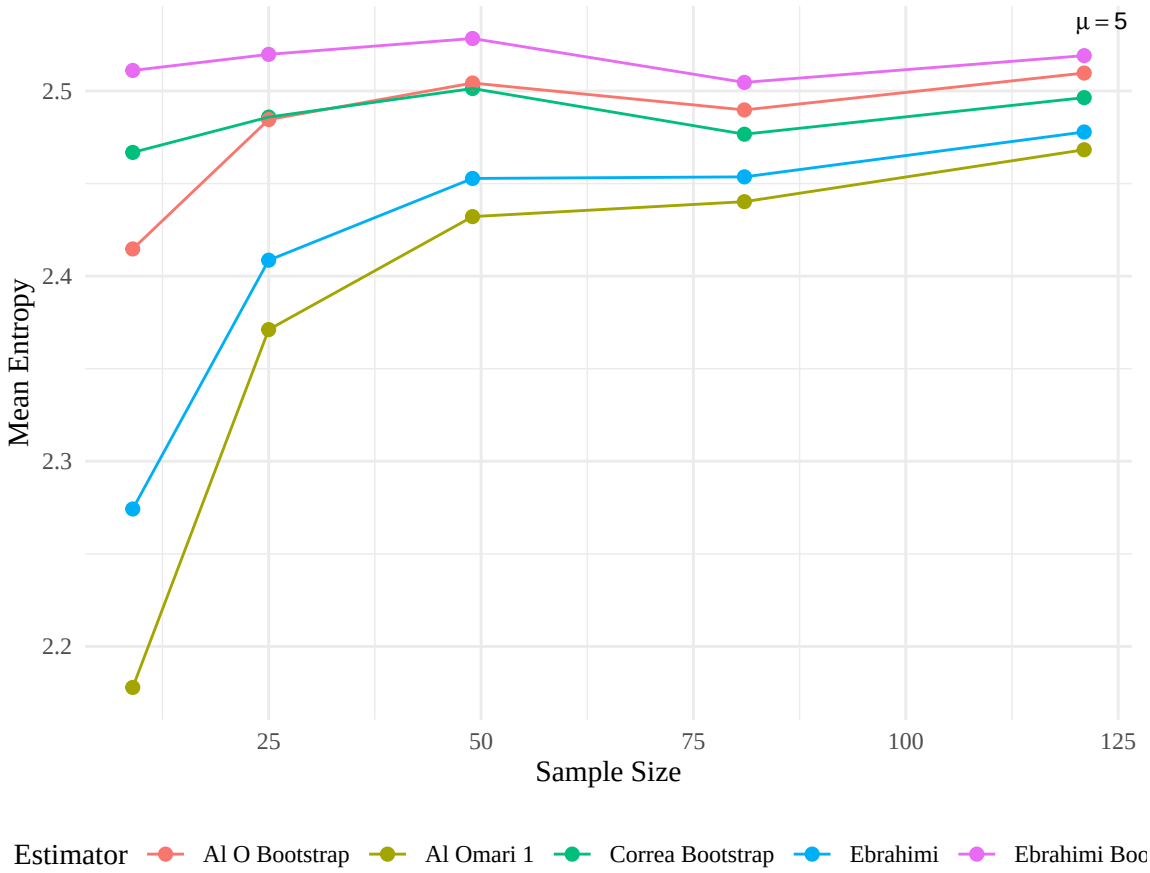

Figure 4: Mean entropy for GI0, with $L = 2$, $\mu = 5$ and $\alpha = -1000$.

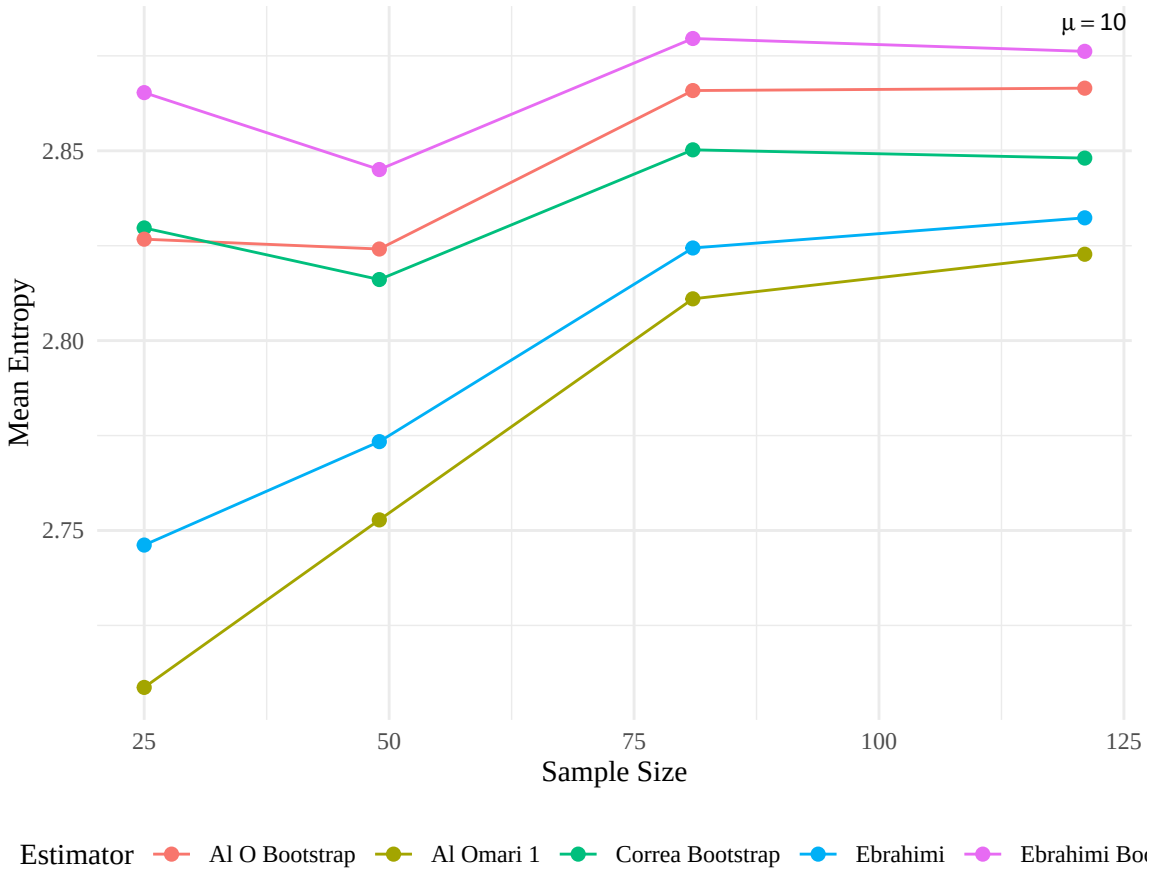

Figure 5: Mean entropy for GI0, with $L = 5$, $\mu = 10$ and $\alpha = -400$.

In the figure we can observe that when the parameter α goes to $-\infty$, the entropy of $\mathcal{G}_I^0$ is close to the entropy of Γ_{SAR}.

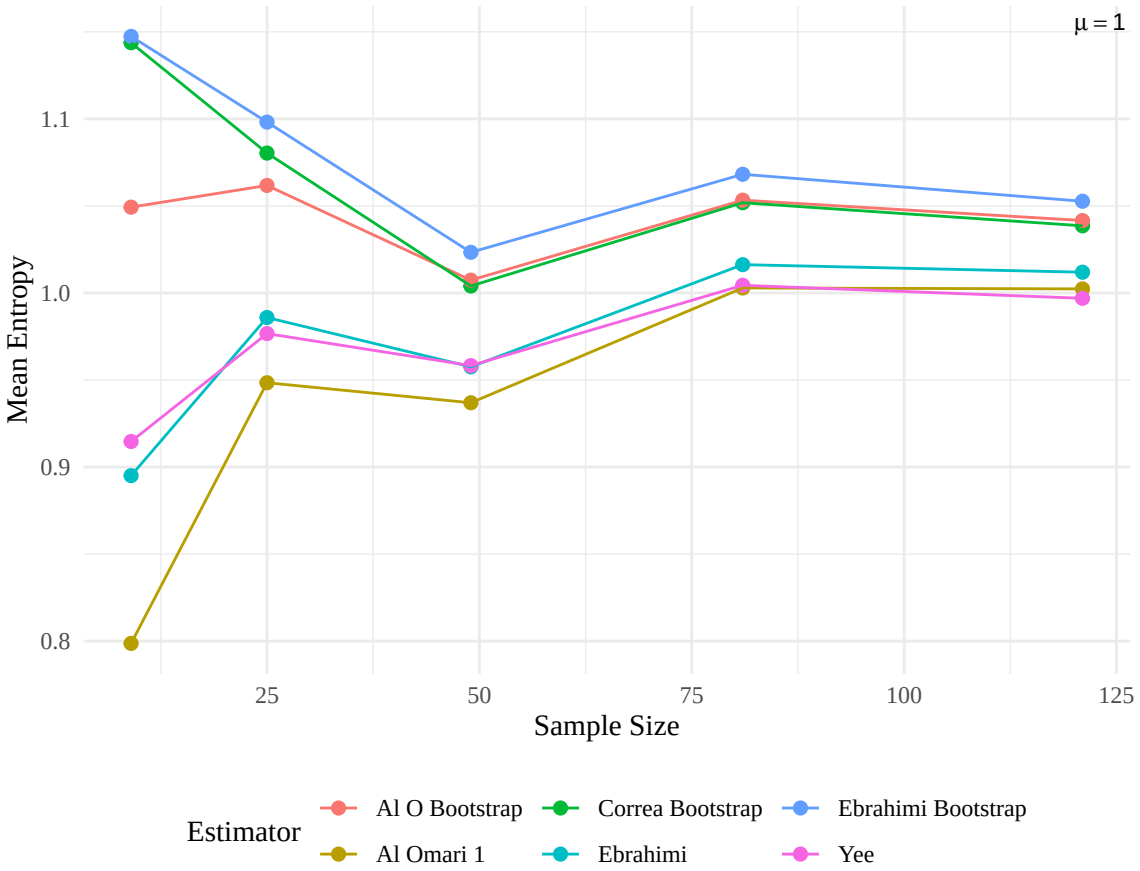

Figure 6: Mean entropy for GI0, with $L = 1$, $\mu = 1$ and $\alpha = -300$.

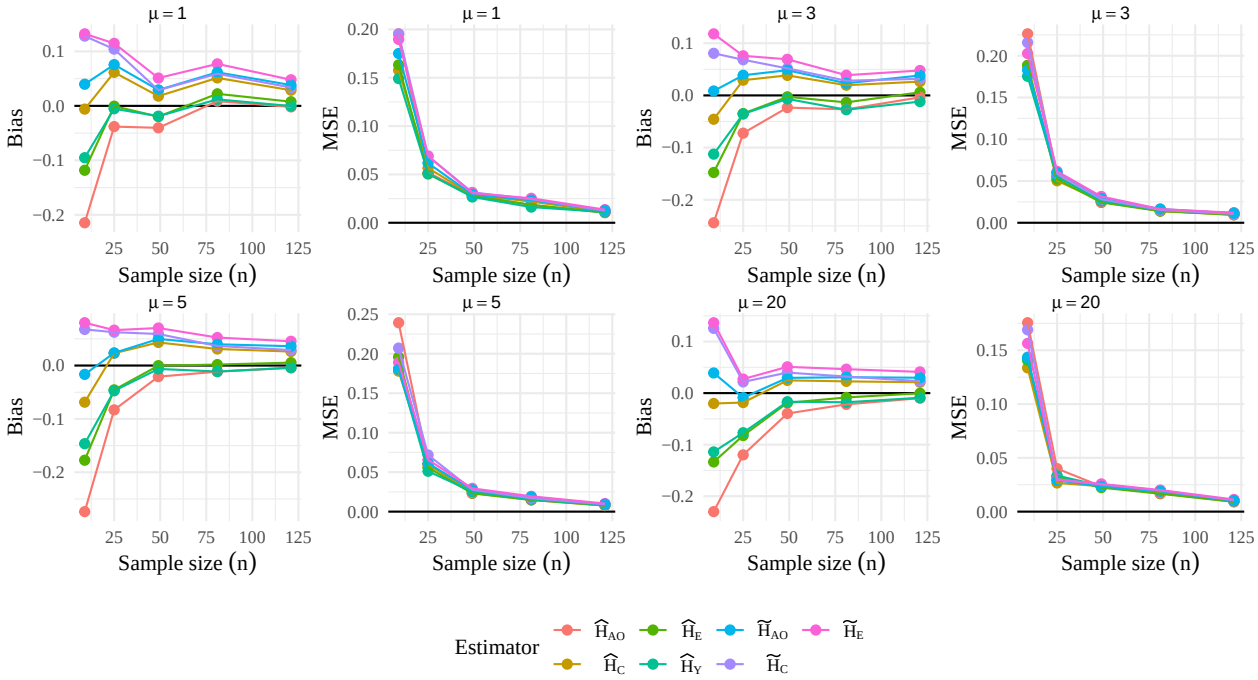

Figure 7: Bias and MSE of entropy estimators for G_I^0, $L = 1$, $\alpha = -20$.

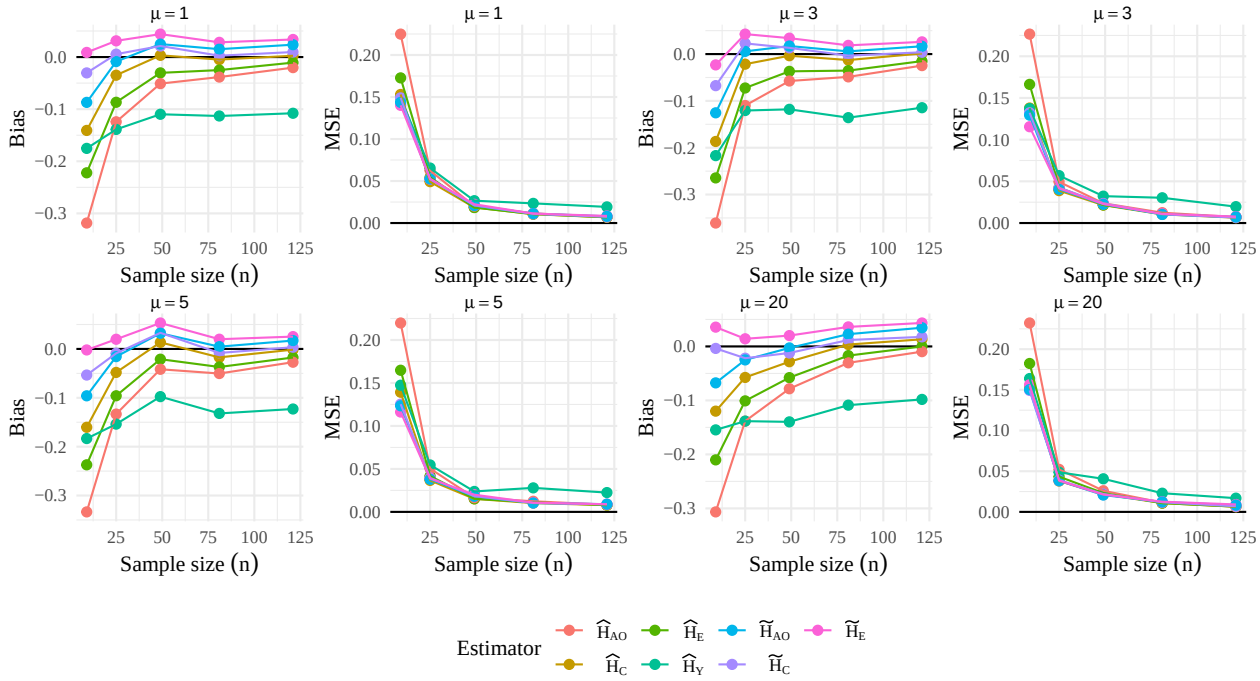

Figure 8: Bias and MSE of entropy estimators for G_I^0, $L = 2$, $\alpha = -20$.

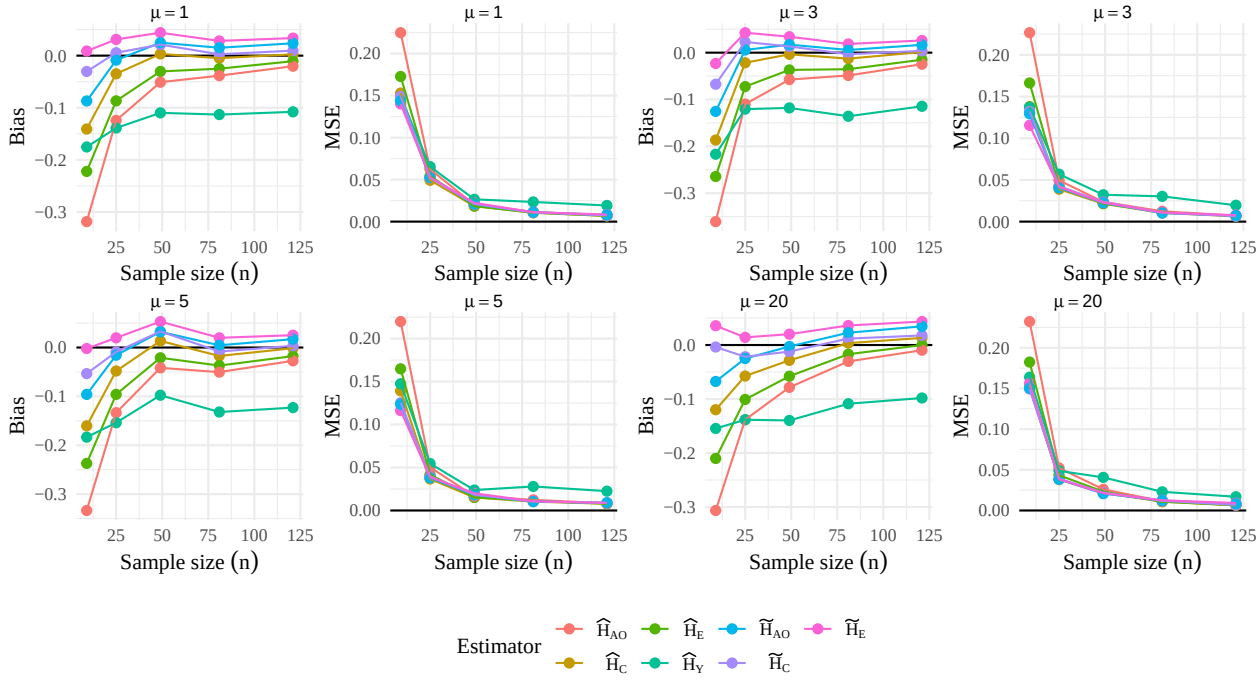

Figure 9: Bias and MSE of entropy estimators for G_I^0, $L = 8$, $\alpha = -20$.