FIG. 1.   **Left:** The average $\langle \widetilde{r} \rangle$ for system sizes $N = 12$, 14, 16, 18, and 20 plotted against number of T gates inserted in between U_{CL} and U'_{CL}. The vertical orange dotted line signals the values of $\langle \widetilde{r} \rangle$ for different system sizes when $n_T = 4$. **Right:** The average $\langle \widetilde{r} \rangle$ at fixed $n_T = 4$ plotted against different system sizes $1/N$.
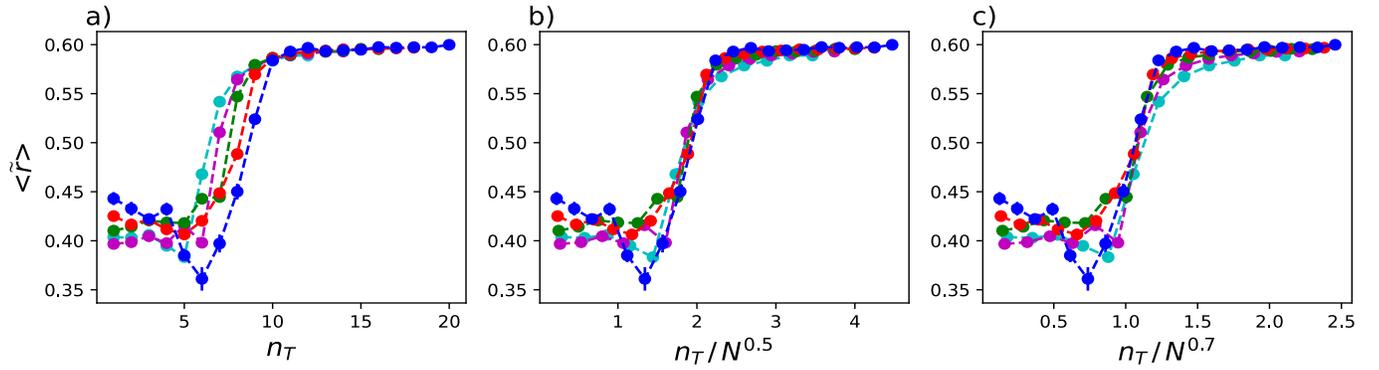
FIG. 2.   Data collected the case when $U'_{\mathrm{CL}} = U_{\mathrm{CL}}^{-1}$. a) The average $\langle \widetilde{r} \rangle$ for system sizes $N = 12$, 14, 16, 18, and 20 plotted against number of T gates inserted, n_T . b) The average $\langle \widetilde{r} \rangle$ for different system sizes fited against n_T /N^{α}, with $\alpha = 0.5$, and c) $\alpha = 0.7$.