

Plot of $P_{ii} = \left\langle c_{i\alpha}^\dagger c_{i\alpha} \right\rangle$ with

$$P_{ii} = e^{i\mathbf{Q}\cdot\mathbf{r}_i} + \text{c.c.}$$

$$\text{with } \mathbf{Q} = 2\pi(1/4, 0)$$