Fourier spectrum of $n(x, t)$: initial vs final vs time-averaged

Legend:
- t = 0
- t = 50.00
- $\langle n \rangle$(t=[10,50])
- peak_avg k=0.628
- peak0 k=0.628
- peak1 k=0.628

y-axis: power $|\hat{n}(k)|^2$

x-axis: k