

Figure 1 shows the 1D momentum distribution function  $n(k)$  versus momentum  $k$  for the 1D Bose gas. The plot displays a central peak at  $k=0$  with a width of  $2\delta_k = 0.18$  and a peak height of  $n(0) = 2.46$ . The distribution is symmetric about  $k=0$ . The x-axis ranges from -5.29 to 5.29, and the y-axis ranges from 0.00 to 5.29. The plot is labeled with  $PP=233.0$  and  $N=0.18$ .

