

Figure 1 consists of two side-by-side plots. The left plot shows the time  $[\tau]$  as a function of the number of particles  $N$ . The x-axis is  $N$  (log scale, 0 to 100) and the y-axis is time  $[\tau]$  (0 to 0.035). The right plot shows the position  $[\tau]$  as a function of the number of particles  $N$ . The x-axis is  $N$  (log scale, 0 to 100) and the y-axis is position  $[\tau]$  (0 to 0.08). Both plots compare results from a reweighting method (blue line) and a simulation method (orange line). The left plot shows a sharp increase in time as  $N$  increases, while the right plot shows a more gradual increase. The legend for both plots indicates 'Reweight:  $f = 0$ ' and 'Simulation:  $f = 9$ '.