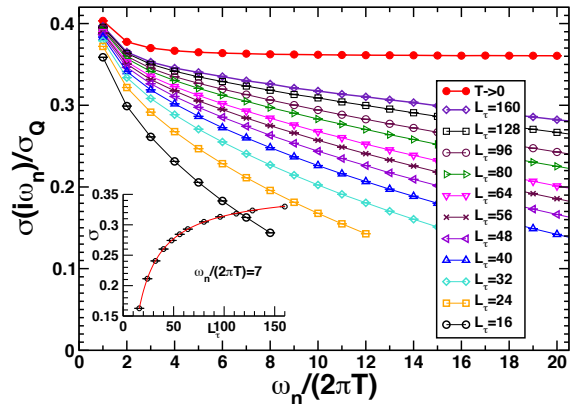


(a)



(b)

FIG. 2. **Quantum Monte Carlo data** (a) Finite-temperature conductivity for a range of  $\beta U$  in the  $L \rightarrow \infty$  limit for the quantum rotor model at  $(t/U)_c$ . The solid blue squares indicate the final  $T \rightarrow 0$  extrapolated data. (b) Finite-temperature conductivity in the  $L \rightarrow \infty$  limit for a range of  $L_\tau$  for the Villain model at the QCP. The solid red circles indicate the final  $T \rightarrow 0$  extrapolated data. The inset illustrates the extrapolation to  $T = 0$  for  $\omega_n/(2\pi T) = 7$ . The error bars are statistical for both a) and b).