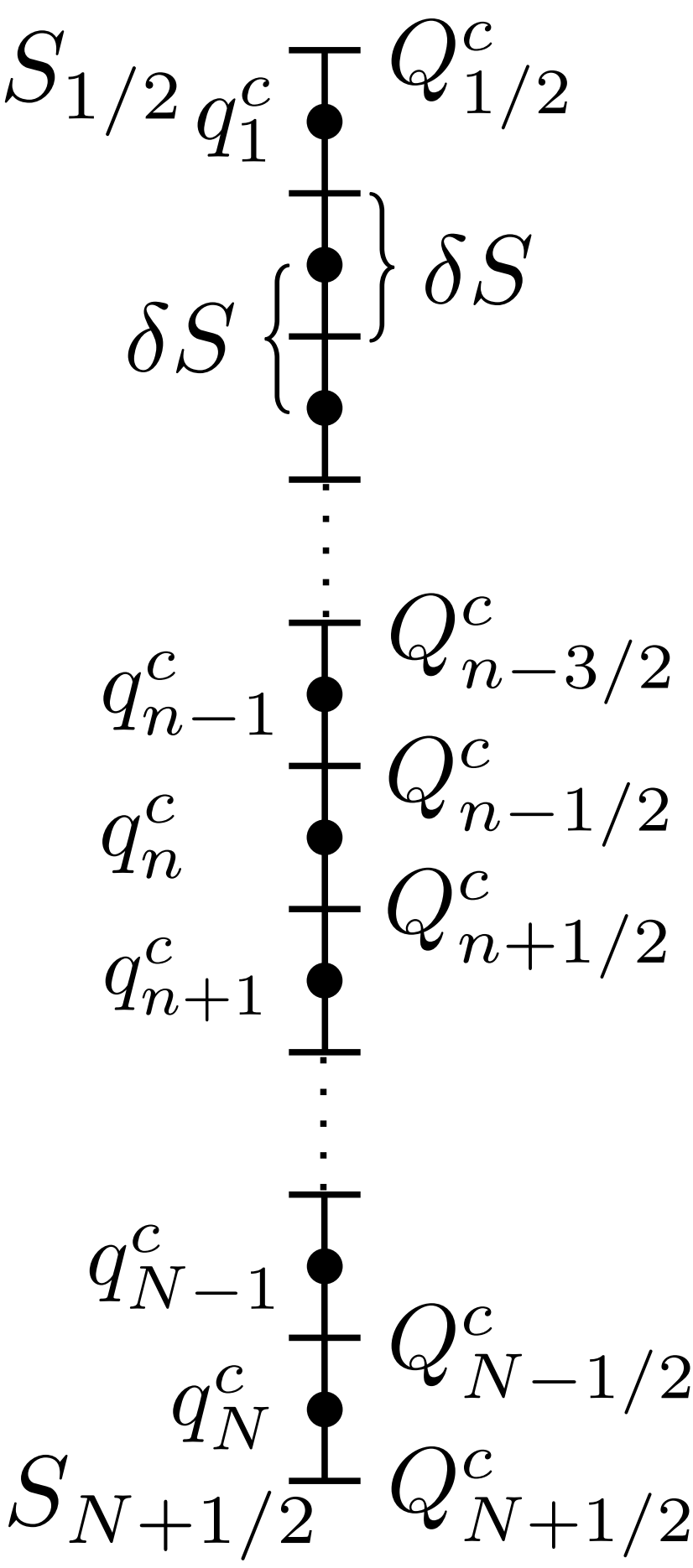
$S_{1/2}$
q_1^c
$Q_{1/2}^c$
δS
δS
$Q_{n-3/2}^c$
q_{n-1}^c
$Q_{n-1/2}^c$
q_n^c
$Q_{n+1/2}^c$
q_{n+1}^c
q_{N-1}^c
$Q_{N-1/2}^c$
q_N^c
$S_{N+1/2}$
$Q_{N+1/2}^c$