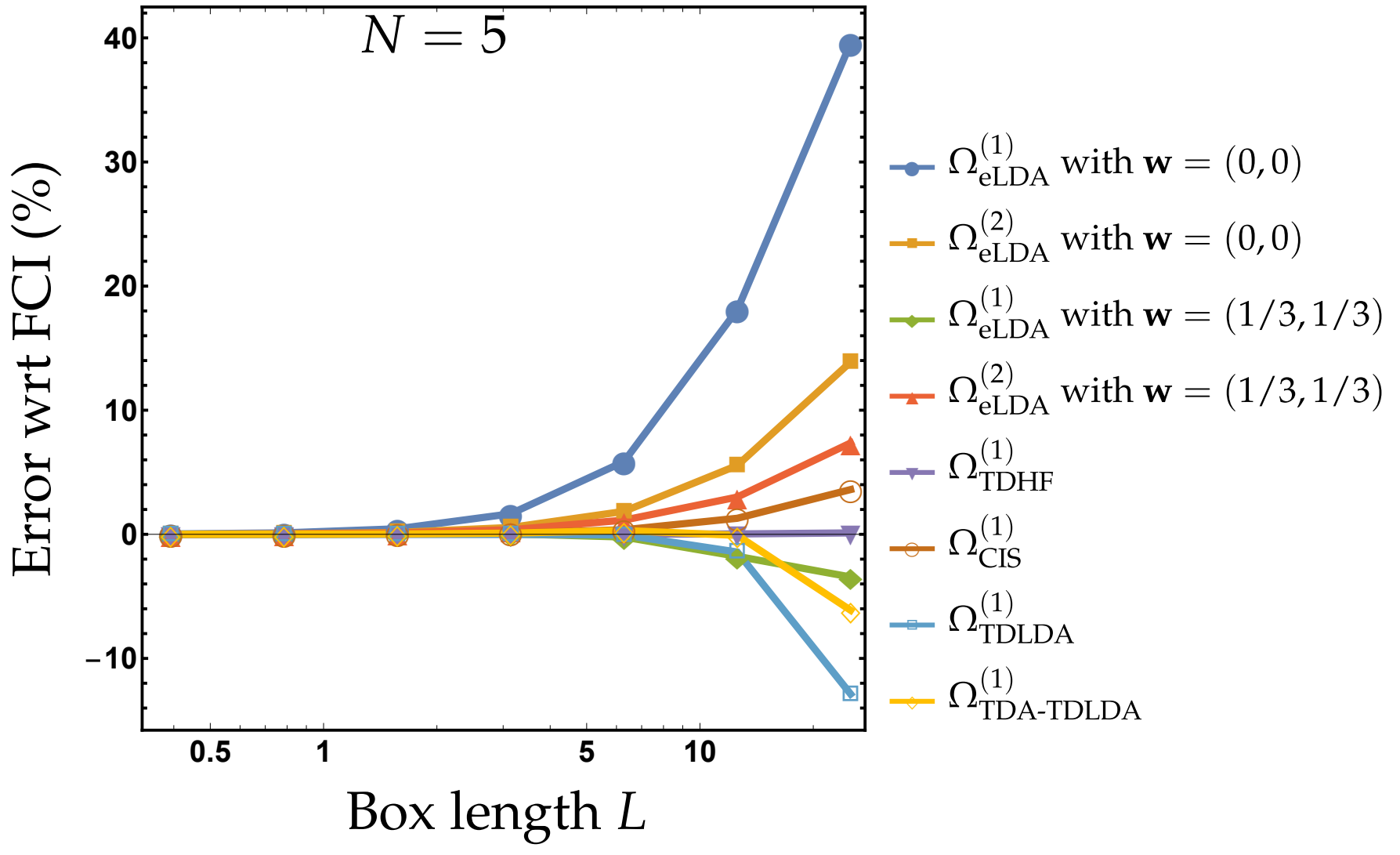
$N = 5$
Error wrt FCI (%)
40
30
20
10
0
−10
0.5
1
5
10
Box length L
$\Omega^{(1)}_{\text{eLDA}}$ with $\mathbf{w} = (0,0)$
$\Omega^{(2)}_{\text{eLDA}}$ with $\mathbf{w} = (0,0)$
$\Omega^{(1)}_{\text{eLDA}}$ with $\mathbf{w} = (1/3,1/3)$
$\Omega^{(2)}_{\text{eLDA}}$ with $\mathbf{w} = (1/3,1/3)$
$\Omega^{(1)}_{\text{TDHF}}$
$\Omega^{(1)}_{\text{CIS}}$
$\Omega^{(1)}_{\text{TDLDA}}$
$\Omega^{(1)}_{\text{TDA-TDLDA}}$