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## SLURM PROLOG
#####
## Job ID : 11524538
## Job Name : Shadow-QPE-Job
## Nodelist : node1636
## CPUs : 20
## Mem/CPU : 8192 MB
## Directory : /oscar/scratch/dqenani
## Job Started : Thu Oct 5 15:45:14 EDT 2023
#####
#####
```

Snapshot Range = [1000, 5000, 10000]

```
shadow zeromode (1000 shots): [0.61512469 0.16439899 0.55507487
0.53524432]
shadow zeromode (5000 shots): [0.60667582 0.05892557 0.36324158
0.70464727]
shadow zeromode (10000 shots): [0.35712673 0.69584384 0.53962616
0.31155331]
shadow zeromode (1000 shots): [0.63121906 0.375 0.5153882
0.44194174]
shadow zeromode (5000 shots): [0.60686042 0.13717582 0.45199676
0.63921995]
shadow zeromode (10000 shots): [0.73601242 0.4235901 0.30425553
0.43160829]
shadow zeromode (1000 shots): [0.50709255 0.58824463 0.27021449
0.56904264]
shadow zeromode (5000 shots): [0.71779 0.25145944 0.64564838
0.06843859]
shadow zeromode (10000 shots): [0.61267885 0.23249528 0.24507154
0.71450018]
shadow zeromode (1000 shots): [0.7299964 0.5318785 0.19867985
0.38044296]
shadow zeromode (5000 shots): [0.76457643 0.37323382 0.3345748
0.40519021]
shadow zeromode (10000 shots): [0.54571086 0.1696019 0.44683508
0.6883119 ]
shadow zeromode (1000 shots): [0.58697344 0.47633051 0.27500955
0.59408853]
shadow zeromode (5000 shots): [0.51099032 0.34156503 0.64117947
0.45946829]
shadow zeromode (10000 shots): [0.34422316 0.62395746 0.62291318
0.32274861]
quantum zeromode (1000 shots): [0.74477346 0.45927933 0.375
0.30618622]
quantum zeromode (5000 shots): [0.74748575 0.4356134 0.35778771
0.3514171 ]
quantum zeromode (10000 shots): [0.72831408 0.46079146 0.3456624
0.37114328]
```

quantum zeromode (1000 shots): [0.72428597 0.39463617 0.39463617
0.40488817]
quantum zeromode (5000 shots): [0.70280822 0.47673129 0.36306774
0.38336627]
quantum zeromode (10000 shots): [0.75619907 0.44012475 0.33070203
0.35367973]
quantum zeromode (1000 shots): [0.7299635 0.47568621 0.35226069
0.34174306]
quantum zeromode (5000 shots): [0.6930569 0.42849336 0.3987686
0.42077212]
quantum zeromode (10000 shots): [0.70077969 0.45049246 0.38864598
0.39359709]
quantum zeromode (1000 shots): [0.72814926 0.44116989 0.36637165
0.37541923]
quantum zeromode (5000 shots): [0.7417223 0.44619295 0.35085653
0.3572948]
quantum zeromode (10000 shots): [0.73105244 0.4165286 0.3592106
0.40377469]
quantum zeromode (1000 shots): [0.72547625 0.38778337 0.45056356
0.34684399]
quantum zeromode (5000 shots): [0.76327968 0.39353177 0.32813049
0.39353177]
quantum zeromode (10000 shots): [0.72122678 0.45002334 0.38018129
0.36438045]

With Shadow Results:

0.8640915976791378, 0.817634877777919, 0.8115012738332694
0.9308952073879473, 0.8526539647353074, 0.9852819027012135
0.9020668528129754, 0.8671173400281404, 0.8727685757157496
0.987107984601314, 0.9861199645391646, 0.8300641267884737
0.9278158100763103, 0.8526502318820922, 0.7927229787164007

Without Shadow Results:

0.9868156842557119, 0.988350894274976, 0.9865872012469706
0.9762880390435276, 0.9802991300196777, 0.9917869230793853
0.9871014640362327, 0.9710395194505773, 0.9763536529767076
0.9841027585517911, 0.9883364194163223, 0.9826688340045691
0.969986289766459, 0.9888184494806209, 0.9821719502278755

Shadow Run Time = -3 hours: 30 minutes: 2 seconds

Without Shadow Run Time = -1 hours: 59 minutes: 44 seconds

Total Run Time = -3 hours: 29 minutes: 46 seconds