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# BG/L Lattice Validation Run 1

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CHECK PLAQ: 1.6194791010440102e+00 1.6200885246692704e+00  
PLAQUETTE ACTION: -4.140012e+06  
PLAQUETTE ACTION: -4.139474e+06  
PLAQ: 1.619479 1.620089  
PBP: mass 7.650000e-03 6.752252e-02 6.913020e-02 5.176642e-03  
5.176353e-03 ( 1 of 1 )  
PBP: mass 7.650000e-02 1.784727e-01 1.748120e-01 -6.813646e-04  
-6.813646e-04 ( 1 of 1 )  
PLAQUETTE ACTION: -4.140012e+06  
PLAQUETTE ACTION: -4.138503e+06  
PLAQ: 1.618913 1.619474  
PBP: mass 7.650000e-03 7.066680e-02 7.175498e-02 -7.241179e-04  
-7.240905e-04 ( 1 of 1 )  
PBP: mass 7.650000e-02 1.722798e-01 1.808792e-01 1.955513e-03  
1.955597e-03 ( 1 of 1 )  
CHECK PLAQ: 1.6189134329037085e+00 1.6194736037543132e+00

2.000000e-02	2.516680e-03	-1.407526e-05	338	9.723322e-08
2.000000e-02	2.607427e-03	-1.103678e-03	382	9.715458e-08
2.000000e-02	2.534948e-03	1.995989e-05	436	9.849686e-08
2.000000e-02	2.490525e-03	-3.564212e-04	474	9.943225e-08
2.000000e-02	2.560888e-03	-1.525512e-04	471	9.879590e-08
2.000000e-02	2.710588e-03	-3.074461e-04	415	9.884686e-08
2.000000e-02	2.537643e-03	-4.718195e-04	393	9.870514e-08
2.000000e-02	2.709360e-03	2.502035e-04	471	9.741250e-08
2.000000e-02	2.801012e-03	-1.117025e-03	581	9.909262e-08
2.000000e-02	2.572869e-03	-4.422239e-04	511	9.905126e-08
2.000000e-02	2.936959e-03	1.095780e-03	479	9.706315e-08
2.000000e-02	2.788503e-03	1.507447e-04	573	9.854992e-08
2.000000e-02	3.064390e-03	-2.125381e-04	495	9.818680e-08
2.000000e-02	2.602434e-03	-3.316487e-04	462	9.834787e-08
2.000000e-02	2.595219e-03	2.219001e-03	534	9.661373e-08
2.000000e-02	2.855710e-03	7.736566e-04	468	9.817975e-08
2.000000e-02	2.565731e-03	3.097816e-04	479	9.964775e-08
2.000000e-02	2.978106e-03	1.099441e-03	498	9.860761e-08
2.000000e-02	2.800363e-03	-5.835350e-05	508	9.866054e-08
2.000000e-02	2.637485e-03	-2.759016e-04	472	9.855734e-08
2.000000e-02	2.971748e-03	1.020707e-03	455	9.769025e-08
2.000000e-02	3.164576e-03	-1.873846e-04	562	9.804462e-08
2.000000e-02	2.676556e-03	-1.292020e-03	495	9.979348e-08
2.000000e-02	2.946465e-03	4.877309e-04	591	9.599639e-08
2.000000e-02	3.822400e-03	-4.128542e-04	649	9.825898e-08
2.000000e-02	3.262778e-03	-7.179569e-04	563	9.743177e-08
2.000000e-02	2.933658e-03	2.464791e-04	507	9.812047e-08
2.000000e-02	2.705901e-03	-9.396477e-04	460	9.846261e-08
2.000000e-02	3.196503e-03	2.341616e-04	616	9.887020e-08
2.000000e-02	2.573725e-03	-7.365941e-04	488	9.920370e-08
2.000000e-02	2.462826e-03	5.749698e-04	354	9.968512e-08
2.000000e-02	2.466391e-03	8.298696e-05	296	9.821155e-08
2.000000e-02	2.519658e-03	2.255493e-04	347	9.778410e-08
2.000000e-02	2.731971e-03	7.212454e-04	455	9.909295e-08
2.000000e-02	2.586757e-03	7.580062e-05	486	9.868512e-08
2.000000e-02	2.504996e-03	-4.408176e-04	372	9.896920e-08
2.000000e-02	2.616292e-03	-3.319085e-04	371	9.888712e-08
2.000000e-02	2.340927e-03	1.193291e-04	502	9.675697e-08
2.000000e-02	2.648450e-03	-8.069066e-04	445	9.720303e-08
2.000000e-02	2.516510e-03	-1.452909e-04	416	9.909800e-08

$$\beta = 2.0$$

$$b=1.9$$

2.000000e-02 5.568201e-03 1.063593e-03 674 9.952071e-08  
 2.000000e-02 6.066533e-03 1.171117e-03 686 9.987908e-08  
 2.000000e-02 6.614534e-03 3.382830e-04 696 9.984298e-08  
 2.000000e-02 6.174924e-03 -1.493066e-04 682 9.810802e-08  
 2.000000e-02 6.991910e-03 1.301452e-03 657 9.882651e-08  
 2.000000e-02 6.364921e-03 1.408403e-03 629 9.939948e-08  
 2.000000e-02 5.960886e-03 1.211390e-03 614 9.792560e-08  
 2.000000e-02 6.942980e-03 2.391933e-03 652 9.879234e-08  
 2.000000e-02 6.019299e-03 6.393723e-04 674 9.932319e-08  
 2.000000e-02 6.407975e-03 -9.972081e-04 617 9.947132e-08  
 2.000000e-02 6.135162e-03 8.785066e-05 642 9.836663e-08  
 2.000000e-02 6.645806e-03 1.039835e-04 651 9.945472e-08  
 2.000000e-02 5.751294e-03 3.995313e-05 621 9.935535e-08  
 2.000000e-02 5.755645e-03 -2.453120e-04 577 9.923516e-08  
 2.000000e-02 5.928664e-03 3.159632e-04 639 9.966644e-08  
 2.000000e-02 6.028251e-03 -1.816591e-03 620 9.983867e-08  
 2.000000e-02 5.259655e-03 6.045362e-04 630 9.866994e-08  
 2.000000e-02 5.654855e-03 1.088848e-03 622 9.888165e-08  
 2.000000e-02 6.099559e-03 -1.172639e-03 623 9.837759e-08  
 2.000000e-02 5.360894e-03 1.058972e-03 562 9.944206e-08  
 2.000000e-02 5.620179e-03 -1.210813e-03 549 9.893047e-08  
 2.000000e-02 5.187540e-03 1.046559e-03 593 9.845082e-08  
 2.000000e-02 5.361411e-03 6.358436e-04 635 9.826597e-08  
 2.000000e-02 6.251468e-03 2.038303e-04 594 9.944246e-08  
 2.000000e-02 5.134534e-03 2.184301e-04 682 9.822459e-08  
 2.000000e-02 6.312759e-03 -2.717919e-03 610 9.858402e-08  
 2.000000e-02 5.451560e-03 -7.496715e-05 717 9.937969e-08  
 2.000000e-02 5.644482e-03 -7.092526e-04 706 9.914071e-08  
 2.000000e-02 5.513270e-03 9.915929e-04 648 9.995813e-08  
 2.000000e-02 5.693232e-03 3.310501e-05 690 9.970793e-08  
 2.000000e-02 6.146764e-03 9.949447e-04 669 9.825356e-08  
 2.000000e-02 6.537521e-03 3.164892e-04 613 9.844160e-08  
 2.000000e-02 5.264385e-03 1.431620e-03 596 9.814721e-08  
 2.000000e-02 5.678583e-03 1.957177e-04 677 9.840897e-08  
 2.000000e-02 6.480968e-03 -1.069149e-03 678 9.921364e-08  
 2.000000e-02 5.795137e-03 3.570477e-04 614 9.855822e-08  
 2.000000e-02 5.039925e-03 -2.009776e-04 621 9.888442e-08  
 2.000000e-02 5.862456e-03 -1.001422e-03 655 9.877956e-08  
 2.000000e-02 5.671922e-03 -1.023698e-03 651 9.854119e-08  
 2.000000e-02 6.155817e-03 3.193235e-04 543 9.764179e-08

Nt=8 (m\_{u,d} = 0.1ms)

```
beta mu,d  ms  u0  ns nt  ReP  dReP  chi_L  dchi_L  cgiter  dcgiter  pbp_ud
dpbp_ud pbp_s dpbp_s plaq dplaq  rect  direct  pgm  dpgm  pb_dmdu_p_ud
dpb_dmdu_p_ud pb_dmdu_p_s dpb_dmdu_p_s dS1 ddS1 dt accept N logfile
6.4580 0.00500 0.0500 0.8549 32
8 0.0024 0.0002 0.061 0.004 0.0 0.0 0.07995 0.00018 0.1940 0.0001 1.60249
0.00008 0.84230 0.00011 0.86229 0.00013 -4.89294 0.00025
-4.83945 0.00023 0.01430 0.00e+00 0.00e+00 0.00 880
o328f21b6458m00820m0820r.00115_01100
6.5000 0.00500 0.0500 0.8569 32
8 0.0032 0.0003 0.063 0.003 0.0 0.0 0.06690 0.00021 0.1755 0.0002 1.61820
0.00016 0.86239 0.00020 0.88358 0.00020 -4.88984 0.00036
-4.84416 0.00044 0.01430 0.00e+00 0.00e+00 0.00 900
o328f21b650m00765m0765r.00125_01120
6.6000 0.00500 0.0500 0.8616 32
8 0.0074 0.0005 0.068 0.004 0.0 0.0 0.04182 0.00018 0.1377 0.0001 1.65320
0.00007 0.90737 0.00010 0.93115 0.00011 -4.87391 0.00018
-4.84310 0.00019 0.01430 0.00e+00 0.00e+00 0.00 925
o328f21b660m00650m0650r.00145_01145
6.6500 0.00500 0.0500 0.8636 32
8 0.0127 0.0014 0.079 0.009 0.0 0.0 0.03126 0.00088 0.1216 0.0005 1.66898
0.00016 0.92778 0.00023 0.95265 0.00034 -4.86796 0.00049
-4.84265 0.00057 0.01430 0.00e+00 0.00e+00 0.00 295
o328f21b665m00599m0599r.00115_00515
6.7000 0.00500 0.0500 0.8657 32
8 0.0191 0.0007 0.073 0.004 0.0 0.0 0.02109 0.00066 0.1062 0.0003 1.68470
0.00006 0.94827 0.00008 0.97417 0.00010 -4.85880 0.00023
-4.83838 0.00029 0.01250 0.00e+00 0.00e+00 0.00 1006
o328f21b670m00552m0552r.00269_01275
6.7600 0.00500 0.0500 0.8678 32
8 0.0276 0.0003 0.077 0.005 0.0 0.0 0.01332 0.00018 0.0905 0.0001 1.70190
0.00005 0.97067 0.00008 0.99759 0.00009 -4.85147 0.00015
-4.83587 0.00017 0.01250 0.00e+00 0.00e+00 0.00 995
o328f21b676m005m05r.00217_01215
```

Machine: Nx=64, Ny=32, Nz=32, Nodes = 65536 Cores = 131072  
CMAT\_TWO SPPROJ TIME IN PCYCLES PER SITE = 769  
COMM TIME IN PCYCLES PER SITE = 566  
MAT\_TRICK TIME IN PCYCLES PER SITE = 471  
TRICK TIME IN PCYCLES PER SITE = 202  
DSLASH\_eo TIME IN PCYCLES PER SITE = 2009  
DSLASH\_eo PERFORMANCE = 16.1%  
INVERTER TIME IN PCYCLES = 1490518860  
INVERTER PERFORMANCE = 15.8%

Machine: Nx=32, Ny=32, Nz=32, Nodes = 32768 Cores = 65536  
CMAT\_TWO SPPROJ TIME IN PCYCLES PER SITE = 773  
COMM TIME IN PCYCLES PER SITE = 563  
MAT\_TRICK TIME IN PCYCLES PER SITE = 474  
TRICK TIME IN PCYCLES PER SITE = 203  
DSLASH\_eo TIME IN PCYCLES PER SITE = 2015  
DSLASH\_eo PERFORMANCE = 16.1%  
INVERTER TIME IN PCYCLES = 1105931328  
INVERTER PERFORMANCE = 15.9%