02/02/15 - 11/02/15

0.1 Dissertation

```
74b0390... 2015-04-21 (10 hours ago)
                     ../../LabDiary/17-Mar-2015/Diary.
        modified:
                       modified:
                                  ../../LabDiary/17-
           pdf
           Mar-2015/Diary.tex
                                      modified:
           ../../LabDiary/17-Mar-2015/Diary.tex.bak
              new file:
                          ../../LabDiary/17-Mar-2015/
           q10d20/acceptance.png
                                     new file:
                                                  . . / . . /
           LabDiary/17-M
Μ
        LabDiary/17-Mar-2015/Diary.pdf
Μ
        LabDiary/17-Mar-2015/Diary.tex
        LabDiary/17-Mar-2015/Diary.tex.bak
М
        LabDiary/17-Mar-2015/q10d20/acceptance.png
Α
        LabDiary/17-Mar-2015/q10d20/energy.png
Α
        LabDiary/17-Mar-2015/q10d20/magnetisation.png
Α
        LabDiary/17-Mar-2015/q10d20/specificheat.png
Α
Α
        LabDiary/17-Mar-2015/q10d20/susceptibility.png
Α
        LabDiary/17-Mar-2015/q4d20/acceptance.png
        LabDiary/17-Mar-2015/q4d20/energy.png
Α
A
        LabDiary/17-Mar-2015/q4d20/magnetisation.png
        LabDiary/17-Mar-2015/q4d20/specificheat.png
Α
        LabDiary/17-Mar-2015/q4d20/susceptibility.png
Α
A
        ProjectReport/2015-04-17/ProjectReport.pdf
Α
        ProjectReport/2015-04-17/ProjectReport.tex
Α
        ProjectReport/2015-04-17/SwanseaLogo.png
A
        ProjectReport/2015-04-17/q1016x16.png
        ProjectReport/2015-04-17/q10variousgrid.png
Α
Α
        ProjectReport/2015-04-17/q2variousgrid.png
        ProjectReport/2015-04-17/q3variousgrid.png
Α
        ProjectReport/2015-04-17/q4variousgrid.png
Α
Α
        ProjectReport/2015-04-17/q8variousgrid.png
Α
        ProjectReport/2015-04-17/title.tex
Α
        ProjectReport/2015-04-17/variousq16x16-full.
   png
        ProjectReport/2015-04-17/variousq16x16.png
Α
```

0.2 Code

```
4435367... 2015-04-21 (10 hours ago)
        modified:
                     Makefile
                                  new file:
                                               anrange/
           collect.sh
                        new file:
                                     anrange/energy
           -0.0625/\mathrm{param}. cfg
                                   new file:
                                                anrange/
           energy -0.1875/param.cfg
                                         new file:
           anrange/energy -0.3125/param.cfg
                                                  new
                    anrange/energy -0.4375/param.cfg
                             anrange/energy -0.5625/param
                     new file:
                                  anrange/energy -0.6875/
           . cfg
                          new file:
           param.cfg
                                       anrange/energy
           -0.8125/\text{param.cfg}
                                   new file:
                                                anrange/
           energy -0.9375/param.cfg
                                         new file:
           anrange/energy -1.0625/param.cfg
                    anrange/energy-1.1875/param.cfg
                             anrange/energy -1.3125/param
               new file:
                                  anrange/energy -1.4375/
           . cfg
                     new file:
                          new file:
           param.cfg
                                       anrange/energy
           -1.5625/\text{param.cfg}
                                   new file:
                                                anrange/
           energy -1.6875/param.cfg
                                         new file:
           anrange/energy -1.8125/param.cfg
           file:
                    anrange/energy - 1.9375/param.cfg
               new file:
                            anrange/param.cfg
           file:
                    anrange/run.sh
                                          new file:
           anrange/target.list
                                         new file:
           anthermtest/8/param.cfg
                                         new file:
           anthermtest/averagecriticalenergies.list
              new file:
                           anthermtest/param.cfg
           new file:
                        anthermtest/q8only.list
                                                      new
                     anthermtest/run.sh
                                          new file:
            file:
           averageenergyatcrit/param.cfg
                    averageenergyatcrit/q10/10/param.
           file:
                                    averageenergyatcrit/
           cfg
                       new file:
                                     new file:
           q10/12/param.cfg
           averageenergyatcrit/q10/14/param.cfg
                   new file:
                                averageenergyatcrit/q10
           /16/param.cfg
                                  new file:
           averageenergyatcrit/q10/18/param.cfg
                   new file:
                                averageenergyatcrit/q10
```

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```
/20/param.cfg
                     new file:
averageenergyatcrit/q10/22/param.cfg
       new file:
                    averageenergyatcrit/q10
/24/param.cfg
                     new file:
averageenergyatcrit/q10/8/param.cfg
                     averageenergyatcrit/q10
        new file:
/param.cfg
             new file:
averageenergyatcrit/q10/run.sh
file:
        averageenergyatcrit/q2/10/param.cfg
         new file:
                      averageenergyatcrit/q2
/12/param.cfg
                       new file:
averageenergyatcrit/q2/14/param.cfg
        new file:
                    averageenergyatcrit/q2
                      new file:
/16/param.cfg
averageenergyatcrit/q2/18/param.cfg
        new file:
                    averageenergyatcrit/q2
/20/param.cfg
                      new file:
averageenergyatcrit/q2/22/param.cfg
        new file:
                    averageenergyatcrit/q2
/24/param.cfg
                      new file:
averageenergyatcrit/q2/8/param.cfg
        averageenergyatcrit/q2/param.cfg
               averageenergyatcrit/q2/run.
sh
         new file:
                      averageenergyatcrit/q3
/10/param.cfg
                      new file:
averageenergyatcrit/q3/12/param.cfg
        new file:
                    averageenergyatcrit/q3
                      new file:
/14/param.cfg
averageenergyatcrit/q3/16/param.cfg
        new file:
                    averageenergyatcrit/q3
/18/param.cfg
                      new file:
averageenergyatcrit/q3/20/param.cfg
        new file:
                    averageenergyatcrit/q3
/22/param.cfg
                      new file:
averageenergyatcrit/q3/24/param.cfg
        new file:
                    averageenergyatcrit/q3
/8/param.cfg new file:
averageenergyatcrit/q3/param.cfg
        averageenergyatcrit/q3/run.sh
                  averageenergyatcrit/q4
      new file:
/10/param.cfg
                      new file:
```

```
averageenergyatcrit/q4/12/param.cfg
        new file:
                   averageenergyatcrit/q4
/14/param.cfg
                      new file:
averageenergyatcrit/q4/16/param.cfg
        new file:
                   averageenergyatcrit/q4
/18/param.cfg
                      new file:
averageenergyatcrit/q4/20/param.cfg
                    averageenergyatcrit/q4
        new file:
/22/param.cfg
                      new file:
averageenergyatcrit/q4/24/param.cfg
                    averageenergyatcrit/q4
        new file:
/8/param.cfg new file:
averageenergyatcrit/q4/param.cfg
        averageenergyatcrit/q4/run.sh
      new file:
                  averageenergyatcrit/q8
/10/param.cfg
                      new file:
averageenergyatcrit/q8/12/param.cfg
        new file:
                    averageenergyatcrit/q8
/14/param.cfg
                      new file:
averageenergyatcrit/q8/16/param.cfg
        new file:
                    averageenergyatcrit/q8
                      new file:
/18/param.cfg
averageenergyatcrit/q8/20/param.cfg
        new file:
                    averageenergyatcrit/q8
/22/param.cfg
                      new file:
averageenergyatcrit/q8/24/param.cfg
        new file:
                    averageenergyatcrit/q8
/8/param.cfg new file:
averageenergyatcrit/q8/param.cfg
                                     new
file:
        averageenergyatcrit/q8/run.sh
      new file:
                  averageenergyatcrit/run.
   new file:
                fulltest/param.cfg
sh
                                     new
        fulltest/run.sh
file:
                            new file:
fulltest/setup.sh
                    modified:
                                 main.cpp
               metropolis.cpp
   modified:
                                    modified
                modified:
    param.cfg
                             potts.cpp
modified:
            potts.h
                         modified:
utility functions.cpp
                            new file:
wanglandau.cpp
```

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```
Α
        anrange/collect.sh
Α
        anrange/energy -0.0625/param.cfg
Α
        anrange/energy - 0.1875/param.cfg
Α
        anrange/energy - 0.3125/param.cfg
Α
        anrange/energy -0.4375/param.cfg
        anrange/energy - 0.5625/param.cfg
Α
Α
        anrange/energy -0.6875/param.cfg
Α
        anrange/energy - 0.8125/param.cfg
Α
        anrange/energy - 0.9375/param.cfg
        anrange/energy -1.0625/param.cfg
Α
        anrange/energy -1.1875/param.cfg
Α
Α
        anrange/energy - 1.3125/param.cfg
        anrange/energy - 1.4375/param.cfg
Α
Α
        anrange/energy -1.5625/param.cfg
Α
        anrange/energy -1.6875/param.cfg
Α
        anrange/energy -1.8125/param.cfg
Α
        anrange/energy - 1.9375/param.cfg
        anrange/param.cfg
Α
Α
        anrange/run.sh
        anrange/target.list
Α
Α
        anthermtest/8/param.cfg
        anthermtest/averagecriticalenergies.list
Α
Α
         anthermtest/param.cfg
        antherm test/q8 only.list
Α
        anthermtest/run.sh
Α
C066
        param.cfg
                          averageenergyatcrit/param.cfg
C061
        param.cfg
                          averageenergyatcrit/q10/10/
   param.cfg
        param.cfg
                          averageenergyatcrit/q10/12/
C061
   param.cfg
C061
        param.cfg
                          averageenergyatcrit/q10/14/
   param.cfg
        param.cfg
                          averageenergyatcrit/q10/16/
C061
   param.cfg
C061
        param.cfg
                          averageenergyatcrit/q10/18/
   param.cfg
C061
        param.cfg
                          averageenergyatcrit/q10/20/
   param.cfg
        param.cfg
C061
                          averageenergyatcrit/q10/22/
   param.cfg
C061
        param.cfg
                          averageenergyatcrit/q10/24/
```

```
param.cfg
C061
        param.cfg
                         averageenergyatcrit/q10/8/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q10/param.
   cfg
Α
        averageenergyatcrit/q10/run.sh
                         averageenergyatcrit/q2/10/
C061
        param.cfg
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q2/12/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q2/14/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q2/16/
   param.cfg
                         averageenergyatcrit/q2/18/
C061
        param.cfg
   param.cfg
                         averageenergyatcrit/q2/20/
C061
        param.cfg
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q2/22/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q2/24/
   param.cfg
C062
        param.cfg
                         averageenergyatcrit/q2/8/param
   . cfg
C065
        param.cfg
                         averageenergyatcrit/q2/param.
   cfg
Α
        averageenergyatcrit/q2/run.sh
C061
        param.cfg
                         averageenergyatcrit/q3/10/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q3/12/
   param.cfg
        param.cfg
C061
                         averageenergyatcrit/q3/14/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q3/16/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q3/18/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q3/20/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q3/22/
   param.cfg
```

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```
C061
        param.cfg
                         averageenergyatcrit/q3/24/
   param.cfg
C062
        param.cfg
                         averageenergyatcrit/q3/8/param
   . cfg
C061
        param.cfg
                         averageenergyatcrit/q3/param.
   cfg
Α
        averageenergyatcrit/q3/run.sh
                         averageenergyatcrit/q4/10/
C061
        param.cfg
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q4/12/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q4/14/
   param.cfg
                         averageenergyatcrit/q4/16/
C061
        param.cfg
   param.cfg
                         averageenergyatcrit/q4/18/
C061
        param.cfg
  param.cfg
                         averageenergyatcrit/q4/20/
C061
        param.cfg
   param.cfg
                         averageenergyatcrit/q4/22/
C061
        param.cfg
   param.cfg
        param.cfg
                         averageenergyatcrit/q4/24/
C061
   param.cfg
C062
        param.cfg
                         averageenergyatcrit/q4/8/param
   . cfg
C061
        param.cfg
                         averageenergyatcrit/q4/param.
   cfg
Α
        averageenergyatcrit/q4/run.sh
        param.cfg
                         averageenergyatcrit/q8/10/
C061
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q8/12/
   param.cfg
        param.cfg
                         averageenergyatcrit/q8/14/
C061
   param.cfg
                         averageenergyatcrit/q8/16/
C061
        param.cfg
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q8/18/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q8/20/
   param.cfg
C061
        param.cfg
                         averageenergyatcrit/q8/22/
```

```
param.cfg
        param.cfg
                         averageenergyatcrit/q8/24/
C061
   param.cfg
        param.cfg
                         averageenergyatcrit/q8/8/param
C062
   .cfg
                         averageenergyatcrit/q8/param.
C061
        param.cfg
   cfg
Α
         averageenergyatcrit/q8/run.sh
Α
         averageenergyatcrit/run.sh
        fulltest/param.cfg
Α
         fulltest/run.sh
Α
         fulltest/setup.sh
Α
Μ
        main.cpp
Μ
        metropolis.cpp
Μ
        param.cfg
Μ
        potts.cpp
Μ
        potts.h
        utility functions.cpp\\
Μ
        wanglandau.cpp
Α
```

0.3 Data