1 Type $(2, 0)$ geometry

1.1 Datasets

Name: 20180608
Dimension: 20×20
Range g_2: $[-4 : -1.5]$ 51 values
Samples: 2200

Name: 20180610
Dimension: 25×25
Range g_2: $[-4 : -1.5]$ 51 values
Samples: 1152

Name: 20180611
Dimension: 30×30
Range g_2: $[-4 : -1.5]$ 51 values
Samples: 1152

1.2 B modes matrix elements

Table: 1, 2
Dataset: 20180608, 20180610, 20180611
Data analysis script: `20_NBexp_monitoring.py`
Gnuplot script:

```
f(x) = m*x + q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($2)) via m, q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($6)) via m, q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($10)) via m, q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($4)) via m, q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($8)) via m, q
fit f(x) "20_varN_B2exp.txt" u (log($1)):(log($12)) via m, q
```

Table: 3, 4
Dataset: 20180608, 20180610, 20180611
Data analysis script: `20_NBexp_monitoring.py`
Gnuplot script:

```
f(x) = m*x + q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($2)) via m, q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($6)) via m, q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($10)) via m, q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($4)) via m, q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($8)) via m, q
fit f(x) "20_varN_B4exp.txt" u (log($1)):(log($12)) via m, q
```

Table: 5, 6
Dataset: 20180608, 20180610, 20180611
Data analysis script: `20_NBij_ik_l_monitoring.py`
Gnuplot script:

```
f(x) = m*x + q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($2)) via m, q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($6)) via m, q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($10)) via m, q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($4)) via m, q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($8)) via m, q
fit f(x) "20_varN_Bij_ik_l.txt" u (log($1)):(log($12)) via m, q
```

Table: 7
Dataset: 20180608, 20180610, 20180611
Data analysis script: `20_NBstatind_monitoring.py`
Gnuplot script:

```
f(x) = m*x + q
fit f(x) "20_varN_Bstatind.txt" u (log($1)):(log(abs($2))) via m, q
fit f(x) "20_varN_Bstatind.txt" u (log($1)):(log(abs($4))) via m, q
fit f(x) "20_varN_Bstatind.txt" u (log($1)):(log(abs($6))) via m, q
```

Table: 8

Dataset: 20180608, 20180610, 20180611

Data analysis script: `20_N4Bexp_monitoring.py`

Gnuplot script:

```
f(x) = m*x + q
fit f(x) "20_varN_4Bexp.txt" u (log($1)):(log(abs($2))) via m, q
fit f(x) "20_varN_4Bexp.txt" u (log($1)):(log(abs($6))) via m, q
fit f(x) "20_varN_4Bexp.txt" u (log($1)):(log(abs($10))) via m, q
```

g_2	Slope	Error
-1.5	-0.97	0.02
-2.7	-0.97	0.05
-4	-0.96	0.01

Table 1: Linear fit of $\log(N)$ vs $\log(E[|B_{ii}|^2])$.

g_2	Slope	Error
-1.5	-1.001	0.004
-2.7	-0.994	0.002
-4	-0.997	0.004

Table 2: Linear fit of $\log(N)$ vs $\log(E[|B_{ij}|^2])$.

g_2	Slope	Error
-1.5	0.89	0.16
-2.7	0.78	0.14
-4	0.82	0.23

Table 3: Linear fit of $\log(N)$ vs $\log(E[|B_{ii}|^4])$.

g_2	Slope	Error
-1.5	1.39	0.23
-2.7	1.22	0.33
-4	0.97	0.06

Table 4: Linear fit of $\log(N)$ vs $\log(E[|B_{ij}|^4])$.

g_2	Slope	Error
-1.5	-1.994	0.009
-2.7	-1.985	0.008
-4	-1.981	0.009

Table 5: Linear fit of $\log(N)$ vs $\log(E[|B_{ij}|^2|B_{il}|^2])$.

g_2	Slope	Error
-1.5	-2.001	0.008
-2.7	-1.984	0.005
-4	-1.992	0.009

Table 6: Linear fit of $\log(N)$ vs $\log(E[|B_{ij}|^2|B_{kl}|^2])$.

g_2	Slope	Error
-1.5	-3.7	0.8
-2.7	-3.8	2.5
-4	-6.1	1.2

Table 7: Linear fit of $\log(N)$ vs $\log(|E[|B_{ij}|^2|B_{kl}|^2] - E[|B_{ij}|^2]E[|B_{kl}|^2]|)$.

g_2	Slope	Error
-1.5	-2.95	0.02
-2.7	-2.7	1.8
-4	-2.91	0.06

Table 8: Linear fit of $\log(N)$ vs $\log(|E[B_{kl}B_{lm}B_{mn}B_{nk}]|)$.