In[1]:=
```
<<NC`
<<NCAlgebra`
<<SDP`
<<NCSE`
<<NCSEBackwardsCompatible`
```

Instruction (READ THIS FIRST)

In the following experiments, we used two different ways to generate linear functionals, i.e. random coefficient (RC) linear functionals and random positive trace (RPT) linear functionals.
The discrete uniform distribution used to generate the entries was changed over the course of the experiments.
The following three lines represent the different distributions we used. They are also repeated in the Experiments Chapter.
Please make sure to use the correct options to reproduce our experiment results.

```
(*RC: g3d4, g3d5, g3d6, g3d7, g4d4, g4d5, g4d6, g5d5, g5d6, g5d7*)
SetOptions[GenerateExtremeAndAnalyze2,
  IntegerRange → {-200, 200}, StepDenominator → 100, MathematicaSDP → False];

(*RPT: g3d4, g3d5, g3d6, g3d7, g4d4, g4d5, g4d6, g5d5, g5d6, g5d7*)
SetOptions[GenerateExtremeAndAnalyze2, IntegerRange → {-200 000, 200 000},
  StepDenominator → 100 000, MathematicaSDP → False];
```

Experiments

RC: [-200,200]/100

In[7]:=
```
SetOptions[GenerateExtremeAndAnalyze2,
  IntegerRange → {-200, 200}, StepDenominator → 100, MathematicaSDP → False];
```

g2d3n1-14

g2d4n1-14

g2d5n1-14

g3d3n1-8

g3d4n1-8

```
For[n=1,n≤8,n++,Print["g3d4n",n];Print[DateList[]];GenerateExtremeAndAnalyze2[3,4,n,10000
```

g3d5n1-13

g3d6n1-13

g3d7n1-13

g4d4n1-8

g4d5n1-8

g4d6n1-8

g5d5n1-8

g5d6n1-8

g5d7n1-8

g6d7n2-8

g5d4n1-8

g6d4n1-8

RPT: [-200000,200000]/100000

In[9]:=
```
SetOptions[GenerateExtremeAndAnalyze2, IntegerRange → {-200 000, 200 000},
  StepDenominator → 100 000, MathematicaSDP → False];
```

g2d3n1-14

g2d4n1-14

g2d5n1-14

g3d4n1-8

g3d5n1-13

g3d6n1-13

g3d7n1-13

g4d4n1-8

g4d5n1-8

g4d6n1-8

g5d5n1-8

g5d6n1-8

g5d7n1-8

g6d7n1-8