Roadmap To Analog Compute Simulators Doc
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1 Introduction

Along with this you are getting a document titled **Analog Compute Simulators**. The document *Analog Compute Simulators* was generated by asking Claude and then Google Gemini the following question, and then editing some:

Are there any available simulators or emulators for performing experiments regarding analog computation or other unconventional computing systems?

The first 3 pages are the Claude output, the next two are the Gemini Output. For now we will just look at the Claude's output, which we callt SIM1.

2 Your TO DO List

There are 8 simulators in SIM1. Each of the 5 of your pick one. (One of you should pick the Ising Machines.)

For the simulator that you try out do the following:

1. Try it out on a toy problem.
2. How easy is it to use? (If its not easy to use then feel free to switch to one of the three not being worked on.)
3. Can you benchmark how much time or other resources it uses?
4. Try it out on a more serious problem.
5. Can you benchmark how much time or other resources it uses?
6. Write a short (1-2 pages) on what you found out.
7. Find literature on what your simulator did and read it.
8. Knowing more go back to step 3.

3 Of Particular Interest

Do any of the simulators work well on clean combinatorial problem like SAT.

Of the simulators listed, only the Ising Model mentions combinatorial optimization.

1. Do any of the other simulators be used on SAT or other combinatorial problems?
2. Ian (our grad student helper) works on Ising models so he can be a resource on that.