UT Quantum Collective

July 22, 2023

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Abstract

We are a community where undergraduate students engage with each other to learn and research topics about everything Quantum.

0.1 What we Do

We hold weekly meetings for research groups who go out and invesitgate topics, learning labs where we teach computing with Qiskit (a quantum circuit compiler), and reading groups where we journey through interesting papers.

In addition, we host semesterly quantum hackathons, occasional guest speakers, and collaborate with other university quantum clubs to host the global SQUID conference.

Join our Discord space to see everything that's going on.

0.2 Cool Pictures

todo: Add pictures of us. idk where to get them

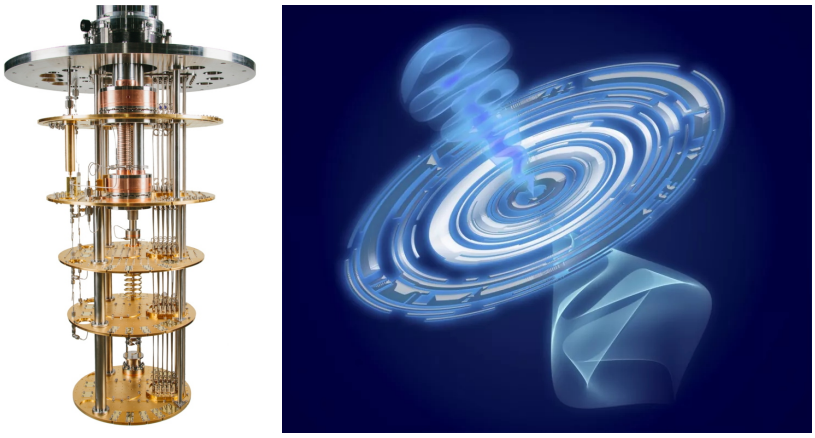

Figure 1: These are what quantum computers really look like

0.3 Meet the Dirac-tors

todo

0.4 See Also

- Email: qdiractor@gmail.com
- Discord
- Instagram
- Hornslink (Become a Member!)

1 Resources

1.1 Learning

- Thomas Wong's textbook is an introductory book which takes the time to give you the foundations in classical computing before teaching you quantum computing.
- Q is for Quantum I haven't looked at this one, but I probably should before I put it here.
- Qiskit has a series of tutorials on creating quantum circuits and a library to run them.
- Scott Aarronson's QIS I and QIS II lecture notes.

1.2 In the Field

- arXiv is the place where all papers are published before they get approved by journals
- SciRate is an arXiv wrapper which quantum researchers use to upvote and comment on the most cutting edge papers.
- IBM's Quantum Experience contains a graphical quantum circuit builder and idk what else, I'll have to look at this one too.
- Quantum Grad has articles and information on internship and research opportunities.

1.3 Community

- Scott Aaronson's blog
- Quantum Frontiers is a blog by the Institute for Quantum Information and Matter @ Caltech

2 Archives

We have recordings of past learning labs, guest speakers, and events on our Youtube Channel

3 Discord