

Project SWARM – Dr. Michael Litman & Walid Ragey



**Classical
Computing:**

**–10 Decillion
(10^{34}) years**



**Stable Quantum
Computing
(Shor's Algorithm):**

–hours to days

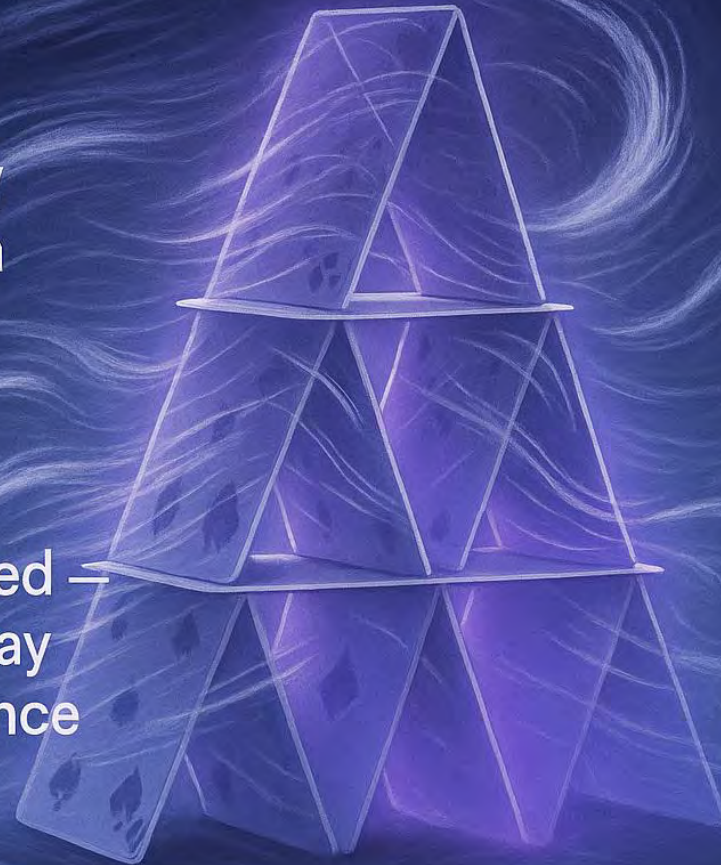


**A stable quantum computer doesn't just
make things faster – it collapses centuries
into seconds.**

The Problem — Decoherence

At the quantum level, information exists in many states at once — think of a spinning coin that's both heads and tails until you look at it.

But the moment it's disturbed — by heat, noise, or even a stray photon — that delicate balance collapses. That's called decoherence.



The Innovation — Predict and Prevent



The Impact

If we can stabilize quantum computers, we unlock reliable quantum computation – accelerating research in medicine, materials, finance, and cybersecurity.

Our project bridges Artificial Intelligence and Quantum Computing to make quantum power practical.

