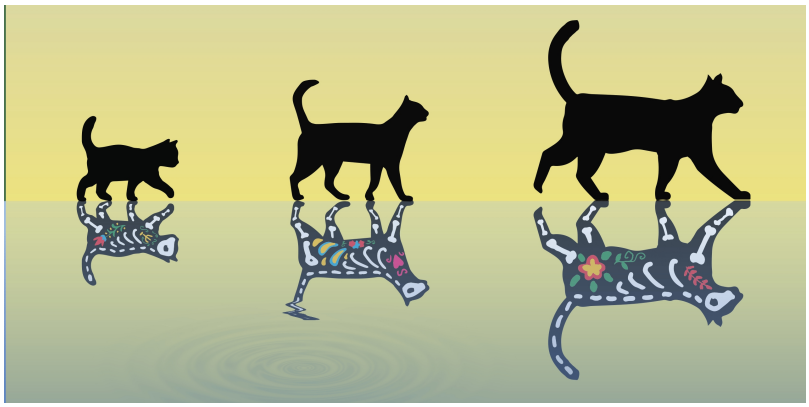

The famous thought experiment of Schrödinger’s Cat neatly sums up a complex quantum phenomenon, highlighting how bizarre that unseen world is by putting it in terms we can visualize. Now, scientists have created the heaviest Schrödinger’s Cat to date, probing the boundaries between quantum and classical physics. Particles on the quantum scale can behave in ways that don’t sound possible according to our everyday experience. For instance, it’s perfectly normal for particles to exist in a superposition of two states at once, or even be in multiple places simultaneously, neither of which are possible up here on the macro scale. But why *can’t* we have our cake and eat it too? Where exactly is the line that separates the realms of quantum and classical physics?

Enter Schrödinger’s Cat . In the theoretical scenario, a cat is sealed in a box with a Geiger counter, a hammer, a flask of poison and a radioactive source. If an atom in the radioactive source decays, the Geiger counter detects it and drops the hammer, which shatters the flask, releases the poison and kills the cat. However, the radioactive atom can exist in a superposition of two states, according to quantum physics. But by extension that superposition should also apply through the whole system, so the cat is also both alive and dead at the same time. It should only be when an observer opens the box and peeks inside that the superposition collapses into one state or the other.

The famous feline was first conjured up in 1935 by theoretical physicist Erwin Schrödinger, originally to highlight what he saw as the absurdities of quantum mechanics, but which eventually became a cornerstone question: at what point does quantum superposition end and reality “choose” one possibility or another?

**_ https://newatlas.com/physics/worlds-heaviest-schrodingers-cat/?utm_source=New+Atlas+Subscribers&utm_campaign=3b9e6fa85b-EMAIL_CAMPAIGN_2023_04_24_08_08&utm_medium=email&utm_term=0_65b67362bd-3b9e6fa85b-%5BLIST_EMAIL_ID%5D