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EDITOR'S NOTE



Elettra Preosti



Melanie Russo

Within this loud, energetic universe, even the things that are the most still are in a state of flux. Even rocks that have stood sturdy for billions of years are comprised of vibrating atoms whose subatomic particles are whizzing around at great speeds. These seemingly motionless rocks are planted on our planet's surface, which in itself is constantly spinning around its axis, playing tug of war with the moon, orbiting around the sun, and whirling around the Milky Way galaxy. Everything from the micro to the macro lives in a state of dynamic equilibrium—a state of constant flux.

Many astrophysicists have reason to believe that the net energy of the universe is zero, implying that all energy in the universe is a temporary quantum fluctuation out of nothingness. Furthermore, it is believed that while quantum fluctuations bring about energy, cosmic fluctuations in the Cosmic Microwave Background are the seed from which galactic superclusters are born, thereby shaping the structure of the entire universe. So, whether they are quantum or cosmic, we have fluctuations to thank for our entire existence.

In this issue, our authors discuss the flux—the perpetual state of flow and change over time—that surrounds us, exploring the ever-changing dynamics within astronomy, mental health, and more. For instance, author Shreya Ramesh explains how the James Webb Telescope came to be while its images show us how dynamic our universe really is, even though it may not seem like it when staring at the night sky. Similarly, in a panel interview with Dr. Daniel Eisenberg and Dr. Igor Chirokov, we better understand how mental health has fluctuated as a result of the pandemic and what tools we can use to bring our minds to a steadier baseline.

It is exciting to track how scientific research flows and changes with time, adapting to current events and converging to an optimized future. Through the fascinating scientific advancements discussed in this issue, one can see that the world works by ebbing and flowing, not by standing still. We hope the *Berkeley Scientific Journal* and the science we share helps you find your balance in this world of oscillations and universal *Flux*.

Melanie Russo
Managing Editor