

Picture of Nothingness

The picture of nothingness was very different in the 20th century from the picture of nothingness before the advent of quantum mechanics. One of the fundamental pillars of quantum mechanics is the principle of uncertainty. Because of this uncertainty, the principle of energy conservation can be violated for a brief period. At any point in space, it is possible for a particle and an antiparticle to pop out of the vacuum, exist for a brief instance, and violate the conservation of energy before they annihilate and return to the vacuum. Therefore, if we could see nature on a microscopic scale, we would not see undisturbed and serene space; what we would see is a quantum foam or froth of particles and antiparticles popping out of the vacuum and then getting annihilated again. Therefore, what we observe as a serene void does not appear to be calm and empty. Scientists have realized that nothing, the very void, from which our universe sprang is governed by the same bizarre quantum physical laws. In ancient times, when there was no observational scientific data and the concept of creation was wrapped in an absolute mystery, belief in God gave meaning to our struggles and lives. It was not asked whether God was real or something we invented. In the Middle Ages, people understood some phenomena from a scientific perspective, beyond which there was a gap in their understanding. They relieved themselves from the irritating burden of not understanding the gaps by saying that God had done this bit. With the advent of science and technology and the accumulation of further knowledge, the rational understanding of the universe grew, the gap narrowed, and God was out of the job. The modern age saw strange scientific ideas, and every explanation of the process governing the universe gave birth to more bizarre and awkward riddles; then, the concept of God often came back with vengeance. Science has not succeeded in solving the mystery of God; rather, according to some celebrated thinkers, the mystery of God has been pushed from one place to a deeper one. In trying to explain the concept of singularity, scientists have reached an awkward phenomenon of reaching the very end of the notion of space-time geometry. Trying to explain singularity and that matter could not disappear merrily into nothingness, scientists inadvertently came across the backdoor to creation, because if the matter could disappear into nothing, as in a singularity, then it is only one bold leap to imagine the reverse that matter could appear out of nothing.