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Quantum Universe

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What is the Universe made of? How did it come to be? Why do we exist? This kind of fundamental questions about the Universe used to be just philosophy, but are now coming into the realm of quantitative science. The key is in quantum physics of elementary particles that determined the evolution of the Universe when it was very young. I will discuss this amazing connection between the large (the Universe) and the tiny (elementary particles), in the context of current and forthcoming experiments.