In 1900, German physicist Planck broke away from the bondage of cl assical physics concept and deduced the empirical formula of blackb ody radiation, that is, assuming that the energy of matter radiation is discontinuous, its energy can only be an integral multiple of a certain minimum energy. This theory opens up a new f ield of physics quantu m science. According to Planck's quantum theory, scientists have obt ained the smallest unit of distance in physics, Planck's length. It is det ermined by the relative values of gravitational constant, light speed a nd Planck constant. It is the smallest distance unit in physics. In this distance unit, gravity and space-time no longer exist, and quantum ef fect dominates.It is meaningful to measure the minimum length. The Planck length is determined by the relative values of the gravitational constant, the speed of light and the Planck constant. It is roughly equ al to 1.6x10-35m, or 1.6x10-33cm, which is one 1022 times the diam eter of a proton. The singularity of classical general relativity is inevi table, so there is a zero point in time and space in the standard big b ang model, which gives God a place to live. But considering the uncer tainty principle of quantum mechanics, some basic measures, such a s length and time, are uncertain. The degree of uncertainty is determi ned by the Planck constant, from which the minimum quantum lengt h can be determined, that is, the Planck length, is 10-33 cm, which is f ar less than the scale of the nucleus. It is impossible to measure any

length more accurately than this, and it is meaningless to measure a length shorter than Planck's length. Similarly, as the minimum interva l of time quantum, Planck time, is 10-43 seconds. There is no shorter time. That is to say, we can't reduce a black hole to a mathematical p oint, nor can we go back to the real beginning of the big bang.Ignorin g the factor of 2 π and so on, the meaning of Planck mass is about th e mass of a black hole with Schwarzschild radius equal to Compton wavelength. The radius of this black hole is about Planck's length.Thr ough thought experiments, it is clarif ied that to imagine measuring th e position of an object, we have to use the ref lection of the light shini ng on it. If we want to measure its position with high accuracy, we m ust use shorter wavelength photons, which means that the energy of these photons will be higher. If the energy is high enough, in principle, they can produce black holes when they hit objects. This black hole c an "swallow" photons and make the experiment fail. Through simple dimensional analysis and calculation, it can be found that when the a ccuracy of measuring object position reaches below Planck length, th e above problems will occur.This thought experiment involves genera l relativity and quantum mechanics (mainly refers to Heisenberg unc ertainty principle), that is to say, combining the two theories, we can't make a smaller and more accurate measurement of the position tha n Planck's length. Therefore, in any theory of quantum gravity combin

ing general relativity with quantum mechanics, if the time is shorter t han Planck's time and the distance is less than Planck's length, our tr aditional labeling of time and space will completely collapse.Ignore s ome factors. For example, Planck time is a quantity of time. Planck ti me is. The Planck time unit marks the beginning of the history of the universe. Our current laws of physics cannot be explored any further. If we go forward, even Einstein's general relativity will fail.The Planck length is the distance that the beam travels in Planck time,.Among th em, Newton's gravitational constant G (6.67 × 10-11nm2 / kg2), Planc k's constant h (6.63 × 10-34j · s) and speed of light C (3 × 108m / s) .S hare your worldI want to sayI want to share my insights,Andashorterl engththanPlanck'sismeaningless.Similarly,astheminimumintervalofti mequantum,Plancktime,isWE43seconds.Thereisnoshortertime.Thati stosay,wecan'treduceablackholetoamathematicalpoint,norcanwegob acktotherealbeginningofthebigbang.Ignoringsomefactors,forexampl e,Planckmassisamassvalue,accordingtoitssizetocalculatethecorresp ondinglengthphysicalquantity,wecangettheconclusionthat"itsSchwarz schildradiusisequivalenttoitsComptonwavelength",andsuchalengthisc alledPlancklength,thatis,1.6xl0-35thsquaremeter,accordingtothePlanc klengthunit,thecurrentobservableuniversesizeestimationvalueis(7.5)4 x10'26M)is1.2x10*62timesthePlancklength.