Cosmological model by cosmological principle
— 3 Quantity of mass and energy in cosmos —

　We think about total quantity of mass and energy in cosmos. Firstly suppose a sphere of radius 1 billion light-years (ly) near the earth, the quantity of mass in the sphere will be　finite. Secondly suppose spheres of radius 1 billion ly near celestial bodies whose locations are 13, 26, 39, ….(adding 13) billion ly distant from the earth, respectively. The quantity of mass in each sphere will be finite, respectively. Since there are infinite number of finite values, sum of the values becomes infinite, that is, **total quantity of mass in our cosmos will be infinite. It must be similar on energy, too.**

　Size (cubic volume) of cosmos is infinite by inner measure. But it is finite by outer measure (measure of parent cosmos). Mass and energy are in the same situation.

　Our cosmos is a celestial body in our parent cosmos. Total of mass and energy in our cosmos are finite in the parent cosmos. However, their total values (each of size, mass, energy, etc,) are infinite in our inner measure, respectively. Measures are different between inside and outside of cosmos. According to this, cosmological principle is maintained.

　Density of mass (or energy) in cosmos, on the large scale, is the same, because cosmos is homogeneous.