A Revolution in Cosmology Is Coming

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Abstract: As the cosmic Dark Ages shrink to zero, the mainstream Big Bang will end up in the dustbin of history.

The diagram of evolution of the observable part of the Universe suggests that the cosmic Dark Ages lasted around 200 to 500 million years from 375,000 years after the Big Bang. At some point, which is still researched, in the very inaccurately defined Dark Ages, a "smooth field" composed of the earliest generations of stars should appear, and only then should protogalaxies and quasars appear.

We know that the most distant galaxy GN-z11 is placed in light travel distance equal to 13.39 Gly i.e. about 400 million years from the Big Bang, while the most distant quasar ULAS J1342+0928 in distance 13.1 Gly. But that doesn't mean we won't discover galaxies and quasars in light travel distance less than 100 million years from the Big Bang in the near future. Note that as time goes on, the cosmic Dark Ages are shrinking, causing great frustration among cosmologists who set the standards of today's cosmology. And it will get even worse – the Universe simply did not have time to create protogalaxies and quasars containing massive central black holes.

The cosmology described within the Scale-Symmetric Theory (SST) shows that the expansion of the Universe started 21.6 Giga-years ago and that we cannot see the initial period 7.75 Giga-years of evolution of galaxies and quasars [1]. Moreover, SST shows that protogalaxies were created before the expansion of the Universe which was separated in time from the SST inflation.

We see that the SST cosmology suggests that we will never see a "smooth" star field. Moreover, we should see galaxies and quasars in the entire region defined today as the cosmic Dark Ages.

A large-scale revolution in cosmology is fast approaching. The shrinking of the cosmic Dark Ages will make the SST cosmology more credible. It will be easier to accept dark matter as loops made of neutrino-antineutrino pairs with spins tangent to the loop, and particles made of such loops. It will be easier to accept dark energy as open such loops or such loops divided into more parts, so the additional single neutrino-antineutrino pairs in the spacetime also behave as dark energy i.e. dark energy increases dynamic pressure in spacetime.

References

[1] Sylwester Kornowski (14 February 2019). "Foundations of the Scale-Symmetric Physics (Main Article No 2: Cosmology)"
http://vixra.org/abs/1511.0223