Supermassive Black Holes Formed Quickly When Dark Matter -H Particles Coalesced Early in the Formation of the Universe

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Abstract: -H and -Z particles were plentiful in the very early universe in the form of Briggs fermibosons with negative matter bosonic components. After these components did their job of transferring fermionic matter from the dying universe to the new universe, the redundant -H particles came together to quickly form supermassive black holes

A big mystery is how the supermassive black holes seen at the centers of most spiral galaxies could have evolved so quickly or at all[1]. Normally, the radiation pressure expected during formation of such a hot black hole would counteract gravity and slow the formation down or even prevent it. But what about dark matter supermassive black holes? We think that they have no radiation so they also have no radiation pressure and nothing to counteract gravity. According to my theory of the universe (cyclic universe E8 symmetry), in the epoch prior to the big bang spacetime was not active and gravity functioned unimpeded so high particle velocities were possible (greater than c) and supermassive dark matter black holes resulted. I have published (viXra.org 1605.0286) concerning which dark matter particle was involved (-H boson). Dark matter structures made in this early time period could and did survive the big bang.

The ease of my theory in solving the supermassive black hole problem brings up the fact that my theory also has solved other problems dealing with the evolution of the universe. The first of these is why are there exactly 248 different particles and antiparticles in our universe? (The

number 248 is required by the controlling E8 symmetry, see viXra.org 1408.0067). The second is why are there so few antimatter particles in the universe? (CP violation was significant in the early universe when top quarks-top antiquarks were the only particles being annihilated (in huge active quasars)). The third is why do we have spiral galaxy "bars"? (Doubling of –Z dark matter via "mono-X" particle action (see viXra 1607.0064)). The forth is why do we have spiral galaxies with even numbers of arms? (The same reason as above). The fifth is why does annihilation radiation of 2(H-Z) energy arise from the center of our galaxy? (Doubling number of -Z bosons, eliminating -H bosons (see viXra.org 1605.0286)).

The overwhelming success thus far in the cyclic universe E8 symmetry theory in explaining the evolution of the universe is a very strong reason why this theory should begin to be taken seriously by physicists in general.

1. "The first black holes", Sky and Telescope, pp. 25-31, January, 2017