

Abstract Submitted  
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**Super Soft Particle Which Arises from Dimension of Information** HASSAN GHOLIBEIGIAN, Retired, KAZEM GHOLIBEIGIAN, Student — It seems that there is dimension of information which is nested with space-time. Density of information {Super Soft (i.e. zero energy) Particles}(SSP) is proportionate with corresponding density of matter and energy in space-time. Because of particles in matter and energy need information to know their next quantum state. Therefore, the SSP which arise from dimension of information should be much near/matched with fundamental particles. Because particles in their motion can't delay for receiving and analyzing SSP for finding their next quantum state. Therefore, photons and gravitons are which inside the black hole can't delay for receiving soft hair (soft photons and gravitons) from horizon for analyzing and understanding their next quantum state. Therefore, this is a lack in Hawking and their co-workers' paper under title of "Soft Hair on Black Holes". Soft particles (sub-particles) are as a door to the dimension of information, for receiving and analyzing SSP for finding the particles' next quantum state. Therefore, soft quarks involving quark, get the SSP (information for quarks), for analyzing and understanding quark's next quantum state. Also the soft gluons receive SSP (information for gluons) for finding their pathway for interaction with quarks.

Hassan Gholibeigian  
Retired

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