Abstract Submitted
for the SES17 Meeting of
The American Physical Society

An Amplified Standard Model ANTONIO COLELLA[1], IBM Retired — The Standard Model (SM) is the gold standard but must be amplified to include the graviton, dark matter, dark energy, and supersymmety. Four independent theories were amplified without sacrificing their integrities including: superstring, particle creation, Higgs forces, and spontaneous symmetry breaking. Amplifications of superstring theory included: 129 fundamental matter/force particles resided in Planck cubes as closed superstrings; and any object in our universe was defined by a volume of contiguous Planck cubes (It from Qubit concept). Amplifications of particle creation included: An intimate relationship existed between particle creation time and the particle's temperature (e.g., W^- at 10^{-12} s and 10^{15} K); matter creation began after inflation; by end of matter creation time, only 22 permanent matter/force particles remained. Amplifications of Higgs forces included: Extremely high temperatures caused spontaneous symmetry breaking, not Higgs forces; matter particles and their associated Higgs forces were one and inseparable; and spontaneous symmetry breaking was bidirectional (e.g. beta decay equation). These amplifications were summarized in an Amplified SM figure.

[1]Reference: Home page www.antonioacolella.com, first article and first video

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Date submitted: 19 Sep 2017 Electronic form version 1.4