Abstract Submitted
for the TSS16 Meeting of
The American Physical Society

**Recurring Substructures from the Weakness of Gravity to Massive Particles and Heavy Nuclei** ROB ALLEN, Retired — Recurring Substructures are repeatedly implied by equations that calculate force ratios, particle masses, and other physical constants. On larger scales, there is evidence that mass comes from interactions with Higgs fields and particles. Identified repeating substructures at the Higgs scale were encountered. Those structures were not unexpected because the Higgs is between a few of the equation substructures for the Planck Mass and far less massive scales. On the smaller energy scales in this abstract, particles with masses are created when light splits apart and collapses. Logrithmic functions collapse the light velocities. Exponentials then accumulate and greatly increase the numbers of split quantas to make particles with masses often based on 17, 16, and 6. PI operations imply circling of split quantas into clusters and the powers of PI may indicate nested repeating cycles within cycles. For example, five PI cycles times a structural multiplier of 6 produces the number of electron masses in protons. Many other particle masses can be derived from PI to the fifth power as a starting point. The author has calculated a great many particle masses and physical constants that will require publishing a series of papers.

Rob Allen
Retired

Date submitted: 18 Mar 2016 Electronic form version 1.4