

## The Contributions of E. P. Wigner to "Magic Number Physics"; Group Theory (Symmetry) and More, Are Gratefully Acknowledged

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Abstract: I noted Eugene Wigner's magic number 82's strange appearance in my last note. His many contributions to physics are acknowledged (unfortunately too briefly) in this note.

Prof. Eugene Wigner's contributions to physics have been many<sup>1</sup> and varied with probably the greatest being group theory (symmetry) although this is largely mathematics, and Wigner himself questioned why this was so.

A lesser known contribution<sup>2</sup> was to "magic numbers", which was the sequence **2, 8, 20, 28, 50, 82, and 126**. Now I have encountered all these numbers except 126 and 28 in my work with MHCE8S theory; 82 was the last<sup>3</sup>. I wondered why 4 is missing and 28 is there although  $10^{27}$  galaxies are in the MHCE8S universe and 4-cyclic universes also. Higgs 125.0 GeV probably held sway in the 30-50s when Wigner did his work and 20000 bottom leptons weighed 1.0 GeV then as now.  $H+1.0 = 125.0 + 1.0 = 126$ . The same reasoning explains the number 28. Also 20000 bottom leptons weighed  $20 \times 10^3$  MeV and  $10^3$  MeV brings in holography. The 4 human genomes requires 2 sets (8) to make a live human body, hence the missing magic number 4 to emphasize this fact.

1. "Eugene Wigner", Wikipedia (2020)
2. "Magic numbers (physics)", Wikipedia (2020)
3. George R. Briggs, "Consequence of rapid top quark decay to massless gauge boson", ViXra 2004.0707, (2020)