

Abstract Submitted  
for the APR20 Meeting of  
The American Physical Society

**CBM 2D-5G theory** THEODORE LACH, Bell Labs — 20 years ago, the CBM model of the nucleus predicted a 5th generation of quarks. The lepton in that 5th generation was predicted to be 27 GeV. I have since refined that estimate to 27.5 GeV. Last year, November 2018 a team of physicists from the CMS collaboration posted on arXiv that a particle of mass 28 GeV had been found in the CERN data at a threshold of 4.9 sigma local significance and that particle decayed into two muons. This recent observation has put the standard model under some strain to explain whether this observation is real. The CBM of the nucleus was started 30 years ago (1989) and first discussed in public in 1996 at Argonne which explained the strong nuclear force as the result of E&M forces of magnetic flux coupling along with electro static attraction. In other words, the helium nucleus was a 2D structure. By the year 2000 the theory was extended to postulate that there were 5 generations of quarks not just 3. The up and dn quark were too heavy to be u and d. The mass of the “up” like 2/3 quarks follow a geometric progression the multiplier being 6.60066. The “dn” like 1/3 quarks follow a geometric progression with the multiplier being 10.000. The “electron” like particles follow a geometric progression where the multiplier is 15.15426 (which means that the slope of this line is “e” 2.71828 ). Geometric mean of (6.60066 and 15.15426) = 10. Come to my poster session and I will explain how harmonic intervals and Harmonic triangles of the 2D-5G theory go into explaining the radii, masses and mass densities of the sub nuclear particles

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Date submitted: 08 Jan 2020

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