

New Standard Model for Elementary Particles

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TABLE OF CONTENTS

[Introduction](#)

[Conclusions](#)

[References](#)

Abstract

This short technical paper presents a new standard model for Elementary Particles. All elementary particle masses are related by simple math. This math is similar to the math used for wifi signals and it is called 1024-QAM. The 1024-QAM table graphically displays how all elementary particles are related, similar to the Standard Periodic Table in chemistry. If we line up all of the particle masses in order, we find there are a number of “gaps.” These are called the mass gaps, and they line up perfectly with 1024-QAM, which fits the sequence of elementary particle masses. Supersymmetry (SUSY) is also found to occur with 1024-QAM. Mass Groups 1 thru 8 have heavyweight counterparts which are found in Mass Groups 9 thru 16. 4 new particles are predicted to be discovered between 1 to 15 TeV. Also, 4 new particles are predicted to be discovered between 50 to 200 TeV. 4 new particles are predicted between 1 to 30 PeV. Numerous other new particles are predicted using 1024-QAM. This ebook provides compelling evidence that our universe is literally blinking, off and on, at a high frequency. This frequency is estimated to be 1.039 THz.

1. Introduction

The math for the QAM table is simple and elegant. No previous particle model has been able to explain the mass gaps. The QAM model beautifully explains the mass gaps.

QAM stands for Quadrature Amplitude Modulation.

It is recommended that readers review reference [1] & [2], as the following discussion will make more sense.

2. 1024-QAM Format

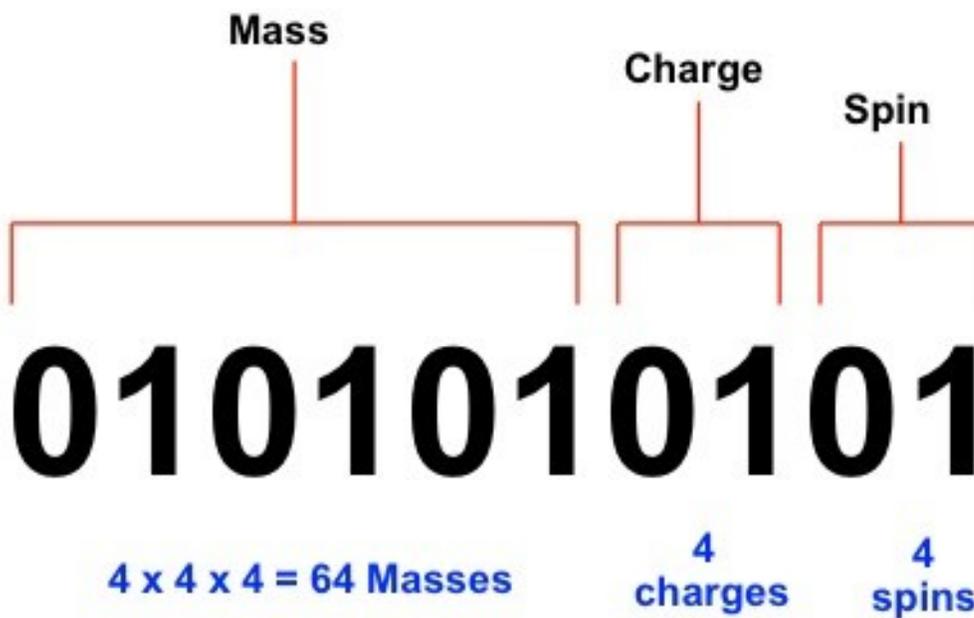


Figure 1. This is the 10-bit format for 1024-QAM. Each position has 4 possible data values: 00, 01, 10, and 11. This equals a total of 1024 possible particles.

Periodic Table for Elementary Particles																
by Mass Groups																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IV	Foron	Clara	Stanford	M Neutrino	T Neutrino	Tetra	Bottom	Top	Sforon Selectron Sneutrino	Sclara	Sstanford	Smuon Sneutrino	Stau Sneutrino	Stetra	Sbottom	Sstop
III	E Neutrino	Rae	Tamu	Rob	Down	Nu	Upsilon	Higgs	Srae	Stamu	Srob	Sdown	Snu	Supsilon	Higgsino	
II	Gluon	Bev	Lee	Jane	Up	Muon	Tau	Z	Slee	Sjane	Sup	Smuon	Stau	Zino		
I	Photon	Ash	Vic	Seth	Electron	Strange	Charm	W	Sash	Svic	Sseth	Selectron	Sstrange	Scharm	Wino	
*c ²	1 eV	100 eV	1 KeV	100 KeV	1 MeV	100 MeV	1 GeV	100 GeV	1 TeV	100 TeV	1 PeV	100 PeV	1 EeV	100 EeV	1 ZeV	100 ZeV
10 ⁿ	0	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23
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	*Boson	*Lepton	*Quark	*Quatern												
	8	24	24	8												

Figure 2. Periodic Table for Elementary Particles showing all 16 mass groups. This is the new standard model. Note how the particles appear in groups of four. This is typical of a QAM or wifi signal. They are arranged by mass groups in a natural pattern. This is the simple math that is used for wifi signals and it also relates all elementary particles. It provides compelling evidence that our universe is literally blinking, off and on, at a high frequency.

Mass Group 9			Mass Group 10		
		Est. Range			Est. Range
IV	Sforon	5 - 9 TeV	Sclara		120 - 190 TeV
III	Selectron Sneutrino	3 - 7 TeV	Srae		80 - 140 TeV
II	Gluino	2 - 6 TeV	Sbev		60 - 100 TeV
I	Photino	1 - 4 TeV	Sash		50 - 90 TeV

Figure 3 Mass Groups 9 & 10 shown with estimated mass values. These mass ranges are estimates.

3. Further Research

This preliminary model needs further research. The readers input and suggestions are requested.

4. Conclusions

Mass Gaps, charge, spin and amplitude are readily identified and arranged by a

Digital-QAM table.

Other conclusions:

- 1) There are numerous particles that can be identified and discovered by using the QAM digital table.
- 2) There must be a mathematical equation associating the mass values in a natural pattern. The precise equation would be very helpful if known.
- 3) Prediction: 4 new particles will be discovered between 1 to 15 TeV/c²
- 4) Prediction: 4 new particles will be discovered between 50 to 200 TeV/c²
- 5) Prediction: 4 new particles will be discovered between 1 to 30 PeV/c².

Readers are encouraged to read the associated technical papers at smashwords.com, lulu.com, amazon, barnandnoble, kobo.com, and apple ibooks.

This is a living document. The author reserves the right to make corrections and changes.

10. References

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APPENDIX

Sample Calculations using approximate mathematical patterns:

Photino Particle

$$1.275/.511 = 2.495$$

$$2.495 \times 1.275 = 3.2 \text{ TeV}$$

Gluino Particle

$$1.777/1.275 = 1.394$$

$$1.394 \times 3.2 = 4.5 \text{ TeV}$$

====

Sash Particle

$$80.4/95 = .846$$

$$.846 \times 80.4 = 68 \text{ TeV}$$

Sbev Particle

$$91.2/80.4 = 1.134$$

$$1.134 \times 68 = 77 \text{ TeV}$$

etc...by mass ratios

These calculations are not predictions, they are merely rough estimates. It is understood these calculations are based on mathematical patterns.

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Periodic Table for Elementary Particles								
by Mass Groups								
	1	2	3	4	5	6	7	8
IV	Foron	Clara	Stanford	M Neutrino	T Neutrino	Tetra	Bottom	Top
III	E Neutrino	Rae	Tamu	Rob	Down	Nu	Upsilon	Higgs
II	Gluon	Bev	Lee	Jane	Up	Muon	Tau	Z
I	Photon	Ash	Vic	Seth	Electron	Strange	Charm	W
*c ²	1 eV	100 eV	1 KeV	100 KeV	1 MeV	100 MeV	1 GeV	100 GeV
10 ^x	0	2	3	5	6	8	9	11
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Revision 4.3, 17 February 2015								
	*Boson	*Lepton	*Quark	*Quatern				
	8	24	24	8				

Figure A1. First Half of Table

	9	10	11	12	13	14	15	16
	Sforon	Sclara	Sstanford	<small>Smuon Sneutrino</small>	<small>Stau Sneutrino</small>	Stetra	Sbottom	Stop
	<small>Selectron Sneutrino</small>	Srae	Stamu	Srob	Sdown	Snu	Supsilon	Higgsino
	Glupro	Sbev	Slee	Sjane	Sup	Smuon	Stau	Zino
	Photino	Sash	Svic	Sseth	Selectron	Sstrange	Scharm	Wino
	1 TeV	100 TeV	1 PeV	100 PeV	1 EeV	100 EeV	1 ZeV	100 ZeV
	12	14	15	17	18	20	21	23

Figure A2. Second Half of Table. These are the Supersymmetry (SUSY) heavyweight counterparts for Mass Groups 1 thru 8.

Appendix B.