

# THE SEVEN HIGGS BOSONS AND THE HEISENBERG UNCERTAINTY PRINCIPLE EXTENDED TO D DIMENSIONS

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ABSTRACT. The proof of the existence of seven dimensions compacted in circles: the principle of uncertainty of Heisenberg extended to d dimensions; Allows us to obtain the masses of the seven Higgs bosons, including the known empirically (125.0901 GeV = mh (1)); And theorize the calculation of the mass of the boson stop quark (745 GeV)

## 1. THE HEISENBERG UNCERTAINTY PRINCIPLE EXTENDED TO D DIMENSIONS

$$\frac{\hbar}{(\Delta x)_d \cdot (\Delta p)_d} \geq \sqrt{\frac{4 \cdot (2\pi)^{d-1}}{d^2}} \quad (1)$$

For one, dimension,  $d = 1$ ; The known quantum value is obtained:

$$\frac{\hbar}{(\Delta x)_d \cdot (\Delta p)_d} \geq \sqrt{\frac{4 \cdot (2\pi)^{1-1}}{1^2}} \rightarrow \frac{(\Delta x)_{d=1} \cdot (\Delta p)_{d=1}}{\hbar} \geq \frac{1}{2}$$

## 2. THE SEVEN DIMENSIONS COMPACTED IN CIRCLES AND THE SEVEN HIGGS BOSONS

The Heisenberg uncertainty principle for seven dimensions:

$$\frac{\hbar}{(\Delta x)_{d=7} \cdot (\Delta p)_{d=7}} \geq \sqrt{\frac{4 \cdot (2\pi)^{7-1}}{7^2}} \quad (2)$$

The current and less massive Higgs boson (125.0901 GeV):

Matrix of the seven Higgs bosons; Seven compacted dimensions :  $7^2$

$$mh1 = m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 125.0758 \text{ GeV} \quad (3)$$

$m_e = \text{electron mass}$  ;  $\beta = \text{Angle supersymmetry}$

2.1. **The other six Higgs bosons.** Quantized Excitations of the Boson mh1:

$$mh(n) = n \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta \quad (4)$$

$$mh(2) = 2 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 250.15 \text{ GeV} \quad (5)$$

$$mh(3) = 3 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 375.22 \text{ GeV} \quad (6)$$

$$mh(4) = 4 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 500.3 \text{ GeV} \quad (7)$$

$$mh(5) = 5 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 625.37 \text{ GeV} \quad (8)$$

$$mh(6) = 6 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 750.45 \text{ GeV} \quad (9)$$

$$mh(7) = 7 \cdot m_e \cdot 4 \cdot (2\pi)^6 \cdot \sin \beta = 875.53 \text{ GeV} \quad (10)$$

## 3. THE MASS OF THE STOP QUARK

$$m\tilde{t} = m_e \cdot 4 \cdot (2\pi)^{8-1} \cdot \sin \beta \cdot \cos^2 \theta_c = 745.86 \text{ GeV} \quad (11)$$

Matrix of the eight gluons:  $8^2$

Thank God Almighty, creator of all things. And our Savior: Jesus Christ  
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