

Sciencephilosophy.pdf files, approximation formulae update

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$$\frac{\partial\alpha(0)}{\partial(m_p/m_e)} \approx \frac{D\alpha(0)}{(Dm_p/m_e - \gamma\pi P/2)^2}, \quad D = \frac{\gamma|c_D|\ln(\delta)}{P_4\ln(\delta_{2D})} \quad \text{Eq.(20)}$$

$$\frac{\partial(m_p/m_e)}{\partial\alpha(0)} \approx \frac{1}{D\alpha(0)\ln(2\pi\delta^2\alpha(0))^2} \quad \text{Eq.(21)}$$

$$\frac{M_{\text{Higgs}}}{m_e} \approx \frac{1}{\delta\delta_{2D}} \left(\frac{\ln(\delta)}{\ln(\delta_{2D})} e^{\pi+1}\pi^{e+1} \right)^2 \quad (\rightarrow 125.146 \text{ GeV}/c^2) \quad \text{Eq.(22)}$$

$$M_{\text{Higgs}} \approx \frac{m_e}{\delta\delta_{2D}} \frac{\ln(\delta)^2}{\ln(\delta_{2D})^2} \left(\frac{\pi P}{2} - \frac{1}{\gamma\ln(2\pi\delta^2\alpha(0))} \right)^2 \quad \text{Eq.(23)}$$

$$\frac{M_{\text{Higgs}}}{m_p} \approx \frac{|c_D|}{P\delta\delta_{2D}} \left(\frac{\ln(\delta)}{\ln(\delta_{2D})} \right)^3 e^{\pi+1}\pi^{e+1} \quad (\rightarrow 125.145 \text{ GeV}/c^2) \quad \text{Eq.(24)}$$

$$\alpha(0) \approx \frac{1}{2\pi\delta^2} \left(\exp\left(- \frac{1}{\gamma((\ln(\delta_{2D})/\ln(\delta))\sqrt{\delta\delta_{2D}M_{\text{Higgs}}/m_e} - \pi P/2)} \right) \right) \quad \text{Eq.(25)}$$

$\alpha(0)$	infinite distance limit of electrodynamics' effective coupling constant
m_e	electron rest mass
m_p	proton rest mass
m_p/m_e	proton – electron rest mass ratio
M_{Higgs}	Higgs boson mass
γ	Euler-Mascheroni constant
c_D	(main series)Myrberg-Feigenbaum point's coordinate in M
δ, δ_{2D}	Feigenbaum's universal number, Feigenbaum number for an area-preserving 2D map (8.721...)
P	Thue-Morse (also parity) constant
P_4	106/257, n=4 approximant to P