

Sciencephilosophy.pdf files, approximation formulae

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

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

$$\alpha(0) \approx \frac{1}{2\pi\delta^2} \left(\exp\left(- \frac{1}{\gamma(e^{\pi+1}\pi^{e+1} - \pi P/2)} \right) \right)$$

$$\frac{m_p}{m_e} \approx \frac{P_4\ln(\delta_{2D})}{|c_D|\ln(\delta)} e^{\pi+1}\pi^{e+1}, \quad P_4 = 106/257$$

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