

$$\mu(a, k) = \frac{(1 + 2\beta^2)k^2 + m^2a^2}{k^2 + m^2a^2}$$

$$\gamma(a, k) = \frac{(1 - 2\beta^2)k^2 + m^2a^2}{(1 + 2\beta^2)k^2 + m^2a^2}$$