Figure 3: The solid, dotted, dashed curves of the dependence of entropy difference $\triangle S'$ on $\varepsilon_M$ in unit of $\pi(GM)^2$ for $\psi_0 = 0.03, 0.02, 0.01$ respectively with $(\beta l_p)^2 = 5$ and $\alpha l_p = 1$ for simplicity.
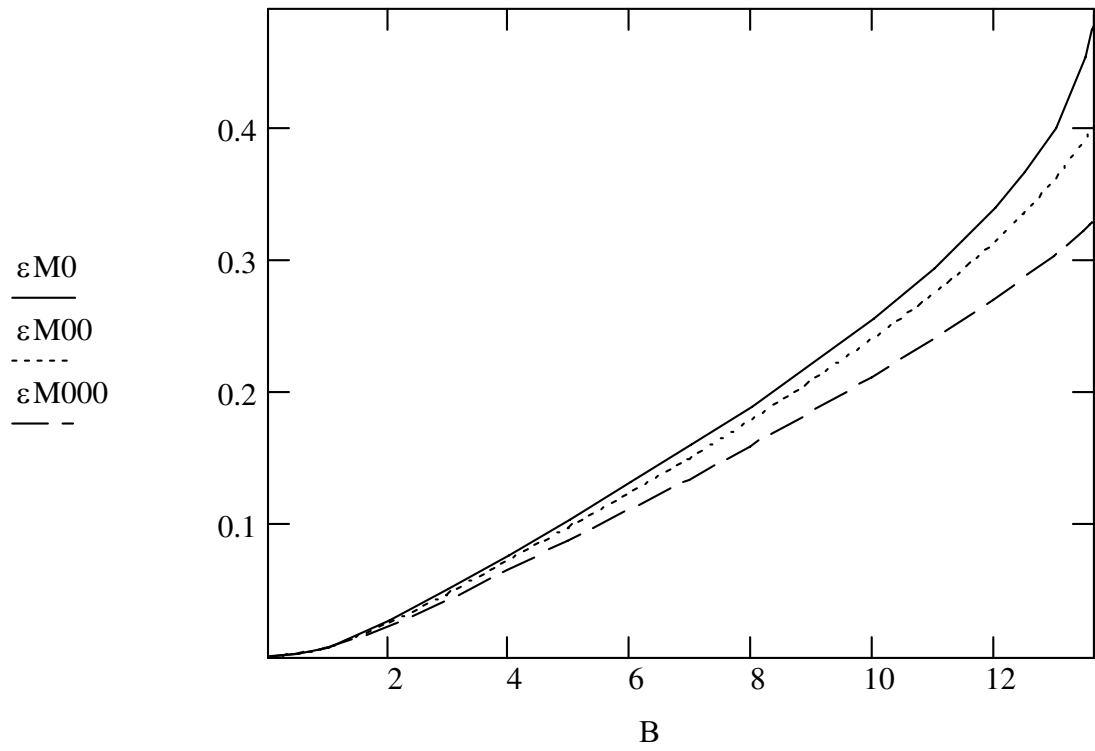
Figure 4: The solid, dashed, dot curves of the relations between $\varepsilon_{M0}$ and $B = l_p\beta$ for $\psi_0 = 0.01, 0.02, 0.03$ respectively while $\alpha l_p = 1$ for simplicity.