Fig. 4.16: Prediction of the model for n_s for ϕ_* Case C with primordial inflation being Chaotic Inflation, with $\alpha = 1$, $\Gamma_\varphi \ll H_{TI}$, $m_\psi = 10^{-2}$ GeV and the parameter values from Table 4.2. (A plot of Eq. (4.185), with $\phi_* = 0$, $m = m_0$ and $\Gamma = g^2 m_0$.) The Blue and Red lines are the central value and lower/upper bounds of n_s respectively as obtained by the Planck spacecraft [40].

Therefore we obtain the primordial curvature perturbation as

$$\zeta = \delta N \sim -\frac{\delta m}{m} \tag{4.198}$$

This is of the same order of magnitude as the primordial curvature perturbation that is produced by the "end of inflation" mechanism, Eqs. (4.59) and (4.63).

4.5.1 Non-Gaussianity

As with the "end of inflation" mechanism scenario, we will consider what is termed local non-Gaussianity, which for the bispectrum corresponds to the "squeezed" configuration of the momenta triangle, in that the magnitude of