

$$\begin{aligned} B_g(k_1, k_2, k_3) &= b_1^3 B_m(k_1, k_2, k_3) \\ &+ b_1^2 b_2 [P_m(k_1)P_m(k_2) + (2 \text{ cyclic})] \\ &+ b_1^3 (\text{primordial Bispectrum}) \end{aligned}$$