Violation of Non-Gaussianity Consistency Relation in a Single Field Inflationary Model

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- **Non-Gaussianity consistency relation** for single field inflationary model

$$\langle \mathcal{R}_{\mathbf{k_1}} \mathcal{R}_{\mathbf{k_2}} \mathcal{R}_{\mathbf{k_3}} \rangle \simeq (2\pi)^3 \delta^3 (\sum_i \mathbf{k_i})(1 - n_s)P_{k_1}P_{k_3}$$

$$k_1 \ll k_2 = k_3$$

- **Violation** of consistency relation in a single field model

$$\langle \mathcal{R}_{\mathbf{k_1}} \mathcal{R}_{\mathbf{k_2}} \mathcal{R}_{\mathbf{k_3}} \rangle \simeq (2\pi)^3 \delta^3 (\sum_i \mathbf{k_i}) \frac{12}{5} f_{NL} P_{k_1}P_{k_3}$$

$$f_{NL} > 1 \qquad n_s - 1 \simeq 0$$

- What is the model?
- What are the physical reasons for violation of consistency relation?

You are welcome!