

Partition function for two points is

$$\langle \phi_i \phi_j \rangle = \frac{1}{Z[J]} \frac{\partial^2 Z[J]}{\partial J_i \partial J_j} \quad (1)$$

expanding to first order of lambda

$$Z[J] = [1 + \frac{\lambda}{4!} (\frac{\partial}{\partial J_i})^4] \mathcal{N}_0 e^{\frac{1}{2} J_m \Delta_{mn} J_n} \quad (2)$$

Then

$$\frac{\partial^2 Z[J]}{\partial J_i \partial J_j} = \frac{\partial^2}{\partial J_i \partial J_j} [e^{\frac{1}{2} J_m \Delta_{mn} J_n} + \frac{\lambda}{4!} (\frac{\partial}{\partial J_i})^4 e^{\frac{1}{2} J_m \Delta_{mn} J_n}] \mathcal{N}_0 \Bigg|_{J=0} \quad (3)$$