

small field

$$C \sim |t|^{-\alpha}$$

$$m \sim |t|^\beta \quad \beta > 0$$

$$\chi \sim |t|^{-\gamma} \quad \gamma > 0$$

$$G \sim \frac{1}{\xi^{d-2+\eta}}$$

$$\xi \sim |t|^{-\nu}$$

large field

$$C \sim h^{-\varepsilon}$$

$$m \sim h^{1/\delta}$$

$$\xi \sim h^{-\mu} \quad \mu > 0$$

Equality

$$(t \rightarrow \infty) \quad m \sim |t|^\beta$$

$$m_{\text{induced}} \sim \chi h = |t|^{-\gamma} h$$

$$m \sim m_{\text{induced}} \Rightarrow |t|^{\beta+\gamma} \sim h$$

$$\chi \sim \int d^d x G_{\text{min}}(x) \sim \xi^{2-\eta} \sim |t|^{-\gamma} \Rightarrow \gamma = (2-\eta)\nu$$

$$m_s \sim m_2 \Rightarrow |t|^\beta \sim h^{1/\delta} \sim |t|^{\frac{\beta+\gamma}{\delta}} \Rightarrow \beta\delta = \gamma + \beta$$

$$C_s \sim C_L \Rightarrow |t|^{-\alpha} \sim h^{-\varepsilon} \sim |t|^{-(\beta+\gamma)\varepsilon} \Rightarrow \alpha = (\beta+\gamma)\varepsilon$$

check $\alpha + 2\beta + \gamma = 2$

$$C \sim \frac{\partial^2 f}{\partial t^2} \Rightarrow f \sim T^2 C$$

$$m \sim \frac{\partial f}{\partial h} \Rightarrow f \sim h m$$

$$\text{so } T^2 C \sim h m \Rightarrow |t|^{2-\alpha} \sim h |t|^\beta \Rightarrow 2-\alpha = \beta + \beta + \gamma$$

$$\text{thus } \alpha + 2\beta + \gamma = 2 \quad //$$