

$$\mathcal{W}(J) = \exp \int^{dx} \mathcal{V}(\partial_x^J) \exp \int \frac{J\overline{KJ}}{2}$$

$$\partial_{x_1}^J \cdots \partial_{x_n} \mathcal{W}(J) = \partial_{x_1}^J \cdots \partial_{x_n} \exp \int^{dx} \mathcal{V}(\partial_x^J) \exp \int \frac{J\overline{KJ}}{2} = \exp \int^{dx} \mathcal{V}(\partial_x^J) \partial_{x_1}^J \cdots \partial_{x_n} \exp \int \frac{J\overline{KJ}}{2}$$

$$= \sum_{0 \leq n} \frac{1}{n!} \widehat{\partial_x^J}^n \partial_{x_1}^J \cdots \partial_{x_n} \exp \int \frac{J\overline{KJ}}{2} = \sum_{0 \leq n} \frac{1}{n!} \sum_{u_k: v_k}^{\text{pairings}} u_1 K_{v_1} \cdots u_{2(n+1)} K_{v_{2(n+1)}}$$

$$\text{2-point function } \partial_{x_1}^J \partial_{x_2} \exp \int \frac{dx}{\partial_x^J} \exp \int \frac{J\overline{KJ}}{2} = \sum_{u_k: v_k}^{x_1: x_2} u_1 K_{v_1} + \lambda \sum_{u_k: v_k}^{x_1: x_2: x: x: x: x} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1}$$

$$+ \lambda^2 \sum_{u_k: v_k}^{x_1: x_2: x: x: x: x: y: y: y} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1}$$

$$= {}^1K_2 + {}^xK_1 {}^xK_2 {}^xK_x + {}^1K_2 {}^xK_x {}^xK_x + {}^xK_x {}^xK_x {}^yK_y {}^yK_y {}^1K_2 + {}^xK_x {}^xK_x {}^yK_y {}^yK_y {}^1K_2 + {}^xK_x {}^xK_x {}^yK_y {}^yK_y {}^1K_2 + {}^0K_0 {}^0K_1 {}^1K_2 + {}^0K_0 {}^0K_2 {}^0K_3 {}^1K_4 + {}^0K_0 {}^0K_2 {}^0K_4 {}^2K_3 + {}^0K_0 {}^0K_3 {}^0K_4 {}^1K_2 + {}^0K_1 {}^0K_2 {}^0K_3 {}^0K_4 +$$

$$\text{4-point function } \partial_{x_1}^J \cdots \partial_{x_4} \exp \int \frac{dx}{\partial_x^J} \exp \int \frac{J\overline{KJ}}{2} = \sum_{u_k: v_k}^{x_1: x_2: x_3: x_4} u_1 K_{v_1} u_1 K_{v_1}$$

$$+ \lambda \sum_{u_k: v_k}^{x_1: x_2: x_3: x_4: x: x: x: x} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} + \lambda^2 \sum_{u_k: v_k}^{x_1: x_2: x_3: x_4: x: x: x: x: x: x: x} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1} u_1 K_{v_1}$$

$$= {}^1K_2 {}^3K_4 + {}^1K_3 {}^2K_4 + {}^1K_4 {}^2K_3 + {}^0K_0 {}^0K_0 {}^1K_2 {}^3K_4 + {}^0K_0 {}^0K_0 {}^1K_3 {}^2K_4 + {}^0K_0 {}^0K_0 {}^1K_4 {}^2K_3 + {}^0K_0 {}^0K_1 {}^0K_2 {}^3K_4 + {}^0K_0 {}^0K_1 {}^0K_3 {}^2K_4 + {}^0K_0 {}^0K_1 {}^0K_4 {}^1K_2 + {}^0K_0 {}^0K_2 {}^0K_3 {}^1K_4 + {}^0K_0 {}^0K_2 {}^0K_4 {}^2K_3 + {}^0K_0 {}^0K_3 {}^0K_4 {}^1K_2 + {}^0K_1 {}^0K_2 {}^0K_3 {}^0K_4 +$$