$$\mathcal{S}_{J}\left(u\right)=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\exp\int Ju\exp\int\frac{J\overparen{KJ}}{2}$$

$$\varphi_{a}\ \text{harm}\ \Longrightarrow\mathcal{S}_{0}\left(\varphi_{a}\right)=\int^{\varphi\wr 0}\exp\int\mathcal{L}_{\varphi+\varphi_{a}}=\int^{\psi\wr\varphi_{a}}\exp\int\mathcal{L}_{\psi}$$

$$\int^{\varphi\wr 0}\exp\overparen{\int\mathcal{L}_{\varphi+\varphi_{a}}+\int\underbrace{\varphi+\varphi_{a}}J}=\int^{\psi\wr\varphi_{a}}\exp\overparen{\int\mathcal{L}_{\psi}+\int\psi J}=\int^{\psi\wr\varphi_{a}}\exp\overparen{\int\mathcal{L}_{\psi}^{0}+\int\mathcal{V}\left(\psi\right)+\int\psi J}$$

$$=\int^{\psi\wr\varphi_{a}}\exp\int^{dx}\mathcal{V}\left({}^{x}\psi\right)\exp\overparen{\int\mathcal{L}_{\psi}^{0}+\int\psi J}=\int^{\psi\wr\varphi_{a}}\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\exp\overparen{\int\mathcal{L}_{\psi}^{0}+\int\psi J}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\int^{\psi\wr\varphi_{a}}\exp\overparen{\int\mathcal{L}_{\psi}^{0}+\int\psi J}=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\int^{\varphi\wr 0}\exp\overparen{\int\mathcal{L}_{\varphi+\varphi_{a}}^{0}+\int\underbrace{\varphi+\varphi_{a}}J}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\int^{\varphi\wr 0}\exp\overparen{\int\mathcal{L}_{\varphi}^{0}+\int\varphi J+\int\varphi_{a}J}=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\exp\int\varphi_{a}J\int^{\varphi\wr 0}\exp\overparen{\int\mathcal{L}_{\varphi}^{0}+\int\varphi J}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial_{x}^{J}\right)\exp\int\varphi_{a}J\exp\int\frac{J\overparen{KJ}}{2}$$

$$\partial^{\varphi}_{x_1}\cdots\partial^{\varphi}_{x_n}\,\mathcal{S}_J\,(0) = {}^{x_1}\Delta \mathbin{⧗}\cdots\mathbin{⧗} {}^{x_n}\Delta\;\partial^{J}_{x_1}\cdots\partial^{J}_{x_n}\mathcal{W}$$

$$\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\varphi\cdots\int^{dx_n}{}^{x_n}\varphi\;\partial^{\varphi}_{x_1}\cdots\partial^{\varphi}_{x_n}\,\mathcal{S}_J\,(0)$$

$$=\sum_{0\leqslant n}\frac{1}{n!}\varphi\mathbin{⧗}\cdots\mathbin{⧗}\varphi\, d^n\,\mathcal{S}_J\,(0) \underset{\text{Tay}}{=} \mathcal{S}_J\,(\varphi) = \exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\exp\int\varphi J\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\sum_{0\leqslant n}\frac{1}{n!}\,\wideparen{\textstyle\int\varphi J}^{\,n}\,\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\varphi\;{}^{x_1}J\cdots\int^{dx_n}{}^{x_n}\varphi\;{}^{x_n}J\,\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\varphi\cdots\int^{dx_n}{}^{x_n}\varphi\;{}^{x_1}\Delta\mathbin{⧗}\cdots\mathbin{⧗}{}^{x_n}\Delta\;\partial^J_{x_1}\cdots\partial^J_{x_n}\,\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\wideparen{\Delta\varphi}\cdots\int^{dx_n}{}^{x_n}\wideparen{\Delta\varphi}\;\partial^J_{x_1}\cdots\partial^J_{x_n}\,\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\wideparen{\Delta\varphi}\cdots\int^{dx_n}{}^{x_n}\wideparen{\Delta\varphi}\;\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\;\partial^J_{x_1}\cdots\partial^J_{x_n}\,\exp\int\frac{J\wideparen{KJ}}{2}$$

$$=\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\wideparen{\Delta\varphi}\cdots\int^{dx_n}{}^{x_n}\wideparen{\Delta\varphi}\;\partial^J_{x_1}\cdots\partial^J_{x_n}\underbrace{\exp\int^{dx}\mathcal{V}\left(\partial^J_x\right)\exp\int\frac{J\wideparen{KJ}}{2}}_{=\,\mathcal{W}\,(J)}$$

$$=\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\wideparen{\Delta\varphi}\cdots\int^{dx_n}{}^{x_n}\wideparen{\Delta\varphi}\;\partial^J_{x_1}\cdots\partial^J_{x_n}\mathcal{W}\,(J)=\sum_{0\leqslant n}\frac{1}{n!}\int^{dx_1}{}^{x_1}\varphi\cdots\int^{dx_n}{}^{x_n}\varphi\;{}^{x_1}\Delta\mathbin{⧗}\cdots\mathbin{⧗}{}^{x_n}\Delta\;\partial^J_{x_1}\cdots\partial^J_{x_n}\mathcal{W}\,(J)$$