$$\delta_g(\boldsymbol{r}) = \frac{n_g(\boldsymbol{r}) - \langle n_g \rangle}{\langle n_g \rangle}$$

$$\delta_m(\boldsymbol{r}) = \frac{\rho_m(\boldsymbol{r}) - \langle \rho_m \rangle}{\langle \rho_m \rangle}$$

$$\delta_g(\boldsymbol{r}) = b_g \delta_m(\boldsymbol{r})$$

$$(2(n-1))^{-1/2}$$

$$\mathrm{prob}(\boldsymbol{\delta}) = (2\pi)^{-n/2} |C|^{-1/2} \exp\left(\boldsymbol{\delta}^\dagger C^{-1} \boldsymbol{\delta}\right)$$

$$C = \langle \boldsymbol{\delta}\boldsymbol{\delta}^\dagger \rangle$$

$$(2\pi)^3 \delta_D(\boldsymbol{k}_1 + \boldsymbol{k}_2) P(k) = \langle \delta(\boldsymbol{k}_1) \delta(\boldsymbol{k}_2) \rangle_{|\boldsymbol{k}_i| = |\boldsymbol{k}_j| = k}$$

$$\xi(r) = \langle \delta(\boldsymbol{r}_1) \delta(\boldsymbol{r}_2) \rangle_{|\boldsymbol{r}_2 - \boldsymbol{r}_1| = r}$$

$$P(\boldsymbol{k}) = \int \xi(\boldsymbol{r}) e^{+i\boldsymbol{k}\cdot\boldsymbol{r}} d^n r$$

$$\xi(\boldsymbol{r}) = \int P(\boldsymbol{k}) e^{-i\boldsymbol{k}\cdot\boldsymbol{r}} \frac{d^n k}{(2\pi)^n}$$

$$\xi(r) = \int_0^\infty \frac{dk}{(2\pi)^n} k^{n-1} P(k) \begin{cases} 2\cos(kr) & n = 1 \\ 2\pi J_0(kr) & n = 2 \\ 4\pi j_0(kr) & n = 3 \end{cases}$$

$$j_0(kr) = \frac{\sin(kr)}{kr}$$

$$\xi(r) = \frac{1}{4\pi^2} \int_0^\infty dk\, k^2 \frac{\sin(kr)}{kr} P(k)$$

$$\Delta^2(k) \equiv \frac{1}{2\pi^2} k^3 P(k) = \frac{d\sigma^2}{d\log k}$$

$$\sigma^2 = \langle \delta(k)^2 \rangle$$

$$\delta_D(\boldsymbol{r} - \boldsymbol{r}_0)$$

$$\exp(i\boldsymbol{k} \cdot \boldsymbol{r}_0)$$