

Type	Mean	Variance
$\mathcal{N}(0, 1) - \mathbf{d_M}$	$\frac{2p}{\sqrt{\pi}}$	$\frac{2p(\pi - 2)}{\pi}$
$\mathcal{N}(0, 1) - \mathbf{d_M^*}$	$\frac{p}{\sqrt{\pi}\mu(m)}$ where $\mu(m) = \frac{\log(\log(2))}{\Phi^{-1}(\frac{1}{m})} - \Phi^{-1}(\frac{1}{m})$	$\frac{p(\pi - 2)}{2\pi\mu^2(m)}$ where $\mu(m) = \frac{\log(\log(2))}{\Phi^{-1}(\frac{1}{m})} - \Phi^{-1}(\frac{1}{m})$
$\mathcal{N}(0, 1) - \mathbf{d_E}$	$\sqrt{2p - 1}$	1
$\mathcal{N}(0, 1) - \mathbf{d_E^*}$	$\frac{\sqrt{2p - 1}}{2\mu(m)}$ where $\mu(m) = \frac{\log(\log(2))}{\Phi^{-1}(\frac{1}{m})} - \Phi^{-1}(\frac{1}{m})$	$\frac{2\log(m)}{\pi^2 + 12\mu^2(m)\log(m)}$ where $\mu(m) = \frac{\log(\log(2))}{\Phi^{-1}(\frac{1}{m})} - \Phi^{-1}(\frac{1}{m})$
$\mathcal{U}(0, 1) - \mathbf{d_M}$	$\frac{p}{3}$	$\frac{p}{18}$
$\mathcal{U}(0, 1) - \mathbf{d_M^*}$	$\frac{(m + 1)p}{3(m - 1)}$	$\frac{(m^3 - 18m^2 - 5m + 2)p}{18(m^3 + m^2 + 2)(m - 1)^2}$
$\mathcal{U}(0, 1) - \mathbf{d_E}$	$\sqrt{\frac{p}{6} - \frac{7}{120}}$	$\frac{7}{120}$
$\mathcal{U}(0, 1) - \mathbf{d_E^*}$	$\sqrt{\frac{p}{6} - \frac{7}{120} \left( \frac{m + 1}{m - 1} \right)}$	$\frac{7(m + 1)^2(m + 2)}{120(m^3 + m^2 + 2)}$
rs-fMRI ( $\mathbf{d_{ROI}}$ )	$\frac{2p(p - 1)}{\sqrt{\pi(p - 3)}}$	$\frac{4(\pi - 2)p(p - 1)}{\pi(p - 3)}$
rs-fMRI ( $\mathbf{d_{ROI}^*}$ )	$\frac{2p(p - 1)}{\mu(m, p)\sqrt{\pi(p - 3)}}$ where $\mu(m, p) = \frac{1}{\sqrt{p - 3}}\Phi^{-1}\left(1 - \frac{1}{m(p - 1)}\right)$	$\frac{2[6(p - 3)\mu^2(m, p)\log[m(p - 1)](\pi - 2) - \pi^2p(p - 1)]}{\pi(p - 3)\mu^2(m, p)(\pi^2 + 12(p - 3)\mu^2(m, p)\log[m(p - 1)])}$ where $\mu(m, p) = \frac{1}{\sqrt{p - 3}}\Phi^{-1}\left(1 - \frac{1}{m(p - 1)}\right)$
GWAS ( $\mathbf{d_{GM}}$ )	$2\sum_{a=1}^p F(a)$ where $F(a) = [2(1 - f_a)^3f_a + 2f_a^2(1 - f_a) + (1 - f_a)^2f_a^2]$ , and $f_a$ is the probability of a minor allele at locus $a$ .	$2\sum_{a=1}^p F(a)[1 - 2F(a)]$ where $F(a) = [2(1 - f_a)^3f_a + 2f_a^2(1 - f_a) + (1 - f_a)^2f_a^2]$ , and $f_a$ is the probability of a minor allele at locus $a$ .
GWAS ( $\mathbf{d_{AM}}$ )	$2\sum_{a=1}^p F(a)$ where $F(a) = [(1 - f_a)^3f_a + f_a^3(1 - f_a) + (1 - f_a)^2f_a^2]$ , and $f_a$ is the probability of a minor allele at locus $a$ .	$\sum_{a=1}^p [G(a) - 4F^2(a)]$ where $F(a) = [(1 - f_a)^3f_a + f_a^3(1 - f_a) + (1 - f_a)^2f_a^2]$ , $G(a) = [(1 - f_a)^3f_a + f_a^3(1 - f_a) + 2(1 - f_a)^2f_a^2]$ , and $f_a$ is the probability of a minor allele at locus $a$ .
GWAS ( $\mathbf{d_{TTPv}}$ )	$(\gamma_0 + \gamma_2 + 2\gamma_1)\sum_{a=1}^p F(a) + \left[\frac{3}{2}(\gamma_0 + \gamma_2) + 2\gamma_1\right]\sum_{a=1}^p G(a)$ where $F(a) = [(1 - f_a)^3f_a + f_a^3(1 - f_a)]$ and $G(a) = (1 - f_a)^2f_a^2$ , $f_a$ is the probability of a minor allele at locus $a$ , and $\gamma_0, \gamma_1$ , and $\gamma_2$ are probabilities of PuPu, PuPy, and PyPy, respectively, at locus $a$ .	$\left[\frac{1}{4}(\gamma_0 + \gamma_2) + \gamma_1\right]\sum_{a=1}^p F(a) + \left[\frac{9}{8}(\gamma_0 + \gamma_2) + 2\gamma_1\right]\sum_{a=1}^p G(a)$ $+ \sum_{a=1}^p \left[(\gamma_0 + \gamma_2 + 2\gamma_1)F(a) + \left[\frac{3}{2}(\gamma_0 + \gamma_2) + 2\gamma_1\right]G(a)\right]^2$ where $F(a) = [(1 - f_a)^3f_a + f_a^3(1 - f_a)]$ and $G(a) = (1 - f_a)^2f_a^2$ , $f_a$ is the probability of a minor allele at locus $a$ , and $\gamma_0, \gamma_1$ , and $\gamma_2$ are probabilities of PuPu, PuPy, and PyPy, respectively, at locus $a$ .