

Type	Mean	Variance
rs-fMRI ( <b>d<sub>ROI</sub></b> )	$\frac{2p(p-1)}{\sqrt{\pi(p-3)}}$	$\frac{4(\pi-2)p(p-1)}{\pi(p-3)}$
rs-fMRI ( <b>d<sub>ROI</sub><sup>*</sup></b> )	$\frac{2p(p-1)}{\mu(m,p)\sqrt{\pi(p-3)}}$ <p>where <math>\mu(m,p) = \frac{1}{\sqrt{p-3}}\Phi^{-1}\left(1 - \frac{1}{m(p-1)}\right)</math></p>	$\frac{2[6(p-3)\mu^2(m,p)\log[m(p-1)](\pi-2) - \pi^2]p(p-1)}{\pi(p-3)\mu^2(m,p)(\pi^2 + 12(p-3)\mu^2(m,p)\log[m(p-1)])}$ <p>where <math>\mu(m,p) = \frac{1}{\sqrt{p-3}}\Phi^{-1}\left(1 - \frac{1}{m(p-1)}\right)</math></p>
GWAS ( <b>d<sub>GM</sub></b> )	$2 \sum_{a=1}^p F(a)$ <p>where  <math>F(a) = [2(1-f_a)^3f_a + 2f_a^3(1-f_a) + (1-f_a)^2f_a^2]</math>,  and <math>f_a</math> is the probability of a minor allele at locus <math>a</math>.</p>	$2 \sum_{a=1}^p F(a)[1 - 2F(a)]$ <p>where  <math>F(a) = [2(1-f_a)^3f_a + 2f_a^3(1-f_a) + (1-f_a)^2f_a^2]</math>,  and <math>f_a</math> is the probability of a minor allele at locus <math>a</math>.</p>
GWAS ( <b>d<sub>AM</sub></b> )	$2 \sum_{a=1}^p F(a)$ <p>where  <math>F(a) = [(1-f_a)^3f_a + f_a^3(1-f_a) + (1-f_a)^2f_a^2]</math>,  and <math>f_a</math> is the probability of a minor allele at locus <math>a</math>.</p>	$\sum_{a=1}^p [G(a) - 4F^2(a)]$ <p>where  <math>F(a) = [(1-f_a)^3f_a + f_a^3(1-f_a) + f_a^3(1-f_a) + (1-f_a)^2f_a^2]</math>,  <math>G(a) = [(1-f_a)^3f_a + f_a^3(1-f_a) + 2(1-f_a)^2f_a^2]</math>,  and <math>f_a</math> is the probability of a minor allele at locus <math>a</math>.</p>
GWAS ( <b>d<sub>TTPv</sub></b> )	$(\gamma_0 + \gamma_2 + 2\gamma_1) \sum_{a=1}^p F(a) + \left[\frac{3}{2}(\gamma_0 + \gamma_2) + 2\gamma_1\right] \sum_{a=1}^p G(a)$ <p>where  <math>F(a) = [(1-f_a)^3f_a + f_a^3(1-f_a)]</math> and <math>G(a) = (1-f_a)^2f_a^2</math>,  <math>f_a</math> is the probability of a minor allele at locus <math>a</math>, and <math>\gamma_0, \gamma_1</math>,  and <math>\gamma_2</math> are probabilities of PuPu, PuPy, and PyPy,  respectively, at locus <math>a</math>.</p>	$\left[\frac{1}{4}(\gamma_0 + \gamma_2) + \gamma_1\right] \sum_{a=1}^p F(a) + \left[\frac{9}{8}(\gamma_0 + \gamma_2) + 2\gamma_1\right] \sum_{a=1}^p G(a) + \sum_{a=1}^p \left[(\gamma_0 + \gamma_2 + 2\gamma_1)F(a) + \left[\frac{3}{2}(\gamma_0 + \gamma_2) + 2\gamma_1\right]G(a)\right]^2$ <p>where  <math>F(a) = [(1-f_a)^3f_a + f_a^3(1-f_a)]</math> and <math>G(a) = (1-f_a)^2f_a^2</math>,  <math>f_a</math> is the probability of a minor allele at locus <math>a</math>, and <math>\gamma_0, \gamma_1</math>,  and <math>\gamma_2</math> are probabilities of PuPu, PuPy, and PyPy,  respectively, at locus <math>a</math>.</p>