

$q$ -Metric	Data	Stat	Formula (Eq. #)
max-min normalized ( $\mathbf{L}_1$ )	$\mathcal{N}(0, 1)$	mean	<div> <math display="block">\frac{p}{\sqrt{\pi}\mu_{\max}^{(1)}(m)} \quad (93)</math> </div> <div> where <math>\mu_{\max}^{(1)}(m) = \frac{\log(\log(2))}{\Phi^{-1}\left(\frac{1}{m}\right)} - \Phi^{-1}\left(\frac{1}{m}\right)</math> </div>
		variance	<div> <math display="block">\frac{12p(\pi-2)\log(m)}{\pi\left(\pi^2+24\left[\mu_{\max}^{(1)}(m)\right]^2\log(m)\right)} \quad (93)</math> </div> <div> where <math>\mu_{\max}^{(1)}(m) = \frac{\log(\log(2))}{\Phi^{-1}\left(\frac{1}{m}\right)} - \Phi^{-1}\left(\frac{1}{m}\right)</math> </div>
	$\mathcal{U}(0, 1)$	mean	$\frac{(m+1)p}{3(m-1)} \quad (101)$
		variance	$\frac{(m+2)(m+1)^2p}{18(m^3-m+2)} \quad (48)$
max-min normalized ( $\mathbf{L}_2$ )	$\mathcal{N}(0, 1)$	mean	<div> <math display="block">\frac{\sqrt{2p-1}}{2\mu_{\max}^{(1)}(m)} \quad (93)</math> </div> <div> where <math>\mu_{\max}^{(1)}(m) = \frac{\log(\log(2))}{\Phi^{-1}\left(\frac{1}{m}\right)} - \Phi^{-1}\left(\frac{1}{m}\right)</math> </div>
		variance	<div> <math display="block">\frac{6\log(m)}{\pi^2+24\left[\mu_{\max}^{(1)}(m)\right]^2\log(m)} \quad (93)</math> </div> <div> where <math>\mu_{\max}^{(1)}(m) = \frac{\log(\log(2))}{\Phi^{-1}\left(\frac{1}{m}\right)} - \Phi^{-1}\left(\frac{1}{m}\right)</math> </div>
	$\mathcal{U}(0, 1)$	mean	$\sqrt{\frac{p}{6} - \frac{7}{120}\left(\frac{m+1}{m-1}\right)} \quad (101)$
		variance	$\frac{7(m+2)(m+1)^2}{120(m^3-m+2)} \quad (101)$