torsdag 6. oktober 2016 20.08

$$P(>M) = 1 - \int_{-\infty}^{\delta_{crit}} d\delta \; P_{nc}(\delta | M)$$

$$= 1 - \int_{-\infty}^{\delta_{crit}} d\delta \left(P(\delta | M) - P(2\delta_{crit} - \delta | M)\right)$$

$$= 1 - P(\delta < \delta_{crit} | M) - P(2\delta_c - \delta < \delta_c | M)$$

$$-\frac{1}{2}\left(erf\left(\frac{\nu_c}{\sqrt{2}}\right) + 1\right) \qquad \frac{1}{2}$$

$$-\frac{1}{2} erf \frac{\nu_c}{\sqrt{2}} - \frac{1}{2}$$

$$= \frac{1}{2} - \frac{1}{2}\left(erf \frac{\nu_c}{\sqrt{2}} + 1\right)$$

$$P(\delta > \delta_c | M) = \frac{1}{2} - \frac{1}{2}\left(\mathrm{erf}\,\frac{-\nu_c}{\sqrt{2}} + 1\right)$$

$$2P(\delta > \delta_c | M) = \mathrm{erf}\,\frac{-\nu_c}{\sqrt{2}}$$