

Maths of the Day

$$\int_0^1 \frac{x \log(1-x)}{1+x^2} dx = \frac{1}{8} \left(\log^2(2) - \frac{5}{2} \zeta(2) \right)$$

$$\int_0^1 \frac{x \log(1+x)}{1+x^2} dx = \frac{1}{8} \left(\log^2(2) + \frac{1}{2} \zeta(2) \right)$$