

$$\int_{-\infty}^{\infty} \mu(s) \mathbb{E}[|f''(t)| \mathbb{I}[f''(t) < 0]] \times P_{\text{off}}(t)(0)$$

✓

$$= -\mathbb{E}[f''(t) \mathbb{I}[f''(t) < 0]]$$

$$= \left[-\int_{-\infty}^0 x \exp(-x^2/2\Omega) / \sqrt{2\pi\Omega} \right]$$

$$= \int_0^{\infty} x \exp(-x^2/2\Omega) / \sqrt{2\pi\Omega}$$

$$\frac{\Omega^{1/2}}{\sqrt{2\pi}}$$

$$= \left[-\exp(-x^2/2\Omega) \right]_0^{\infty} / \sqrt{2\pi\Omega}$$

$$\frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\Rightarrow 2/\sqrt{2} = \sqrt{2}$$

$$= \frac{\Omega}{\sqrt{2\pi\Omega}}$$