$$\vec{\nabla} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$U = -N \cdot \dot{\Phi}$$

$$A = A_0 \sin \omega t$$

$$\dot{\Phi} = \dot{B}A + \dot{A}B = B\omega A_0 \cos \omega t$$

$$\cos \alpha = \frac{U_{\min}}{U_{\max}}$$

$$\mathrm{d}N = N\frac{b\mathrm{d}r}{b(r_a - r_i)}$$

$$U = \int_{r_i}^{r_a} U_{\mathrm{Einzel}} \mathrm{d}N$$

$$= N\omega B\frac{\pi}{3}(r_i^2 + r_i r_a + r_a^2)$$

$$U = \frac{1}{\sqrt{2}}\frac{R_{\mathrm{Voltmeter}}}{R_{\mathrm{Spule}} + R_{\mathrm{Voltmeter}}} U_{\mathrm{Anzeige}}$$

$$\tilde{U} = N\omega B\tilde{r}^2$$

$$\sigma_{\tilde{U}} = \sqrt{N^2 B^2 \tilde{r}^4}\sigma_\omega$$

$$\frac{\sigma_{\tilde{U}}}{\tilde{U}} \propto \frac{\sigma_\omega}{\omega}$$

$$\sigma_U = \sqrt{\sum_{i=1}^{m} \left(\frac{\partial U}{\partial x_i}\right)^2 \sigma_{x_i}^2}$$