

$$u = \int_0^{\infty} e^{d\epsilon} g(\epsilon) f(\epsilon)$$

definition

$$\Delta u = \int_0^{\infty} d\epsilon \, e^{g(\epsilon)} f(\epsilon) - \int_0^{\epsilon_F} d\epsilon \, e^{g(\epsilon)}$$

haupte Kalkulation behau da.

$$\text{Näherungsbedingung: } \epsilon_F$$

$$N = \int_0^{\infty} d\epsilon \, g(\epsilon) f(\epsilon)$$

$$= \int_0^{\epsilon_F} d\epsilon \, g(\epsilon)$$

$$\epsilon_F \cdot N = \int_0^{\infty} d\epsilon \cdot \epsilon_F g(\epsilon) f(\epsilon)$$

$$= \int_0^{\epsilon_F} d\epsilon \, \epsilon_F g(\epsilon)$$

||

$$\int_0^{\epsilon_F} d\epsilon \, \epsilon_F g(\epsilon) f(\epsilon) + \int_{\epsilon_F}^{\infty} d\epsilon \, \epsilon_F g(\epsilon) f(\epsilon)$$

$f(\epsilon)$ verschwindet $\epsilon=0$

faste Kalkulation!