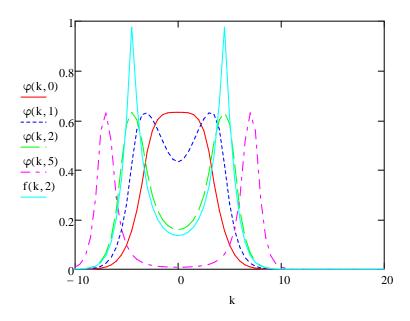
$$\alpha \coloneqq 1 \qquad \beta \coloneqq 0.1 \qquad \qquad f(q,e) \coloneqq \text{exp} \Big(\!\!\! - \!\! \alpha \cdot \, \Big| \, \beta \cdot q^2 - e \Big| \Big)$$

$$\Delta \coloneqq 1$$

$$f(1,1) = 0.407$$

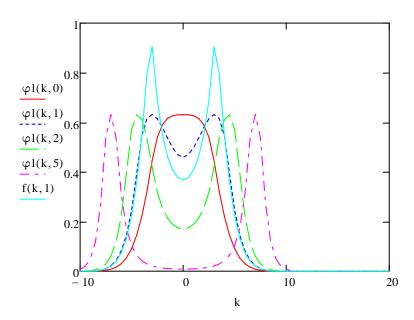
$$\phi(q,e0) \coloneqq \frac{1}{2 \cdot \Delta} \cdot \int_{e0-\Delta}^{e0+\Delta} f(q,e) \, de$$

$$\phi(1,0) = 0.63 \\ k := -10, -9.5..20$$



$$\mathrm{fl}\big(q_{\mathrm{X}},q_{\mathrm{y}},q_{\mathrm{z}},e\big) \coloneqq \exp\!\!\left[\!\!-\!\alpha\!\cdot\!\left|\beta\!\cdot\!\left(q_{\mathrm{X}}\!\cdot\!q_{\mathrm{X}}+q_{\mathrm{y}}\!\cdot\!q_{\mathrm{y}}+q_{\mathrm{z}}\!\cdot\!q_{\mathrm{z}}\right)-e\right|\right]$$

$$\phi \mathbf{1} \Big(\boldsymbol{q}_{\boldsymbol{X}}, \boldsymbol{e} \boldsymbol{0} \Big) \coloneqq \frac{1}{8 \cdot \Delta^3} \cdot \int_{\boldsymbol{e} \boldsymbol{0} - \Delta}^{\boldsymbol{e} \boldsymbol{0} + \Delta} \int_{-\Delta}^{\Delta} \int_{-\Delta}^{\Delta} f \mathbf{1} \Big(\boldsymbol{q}_{\boldsymbol{X}}, \boldsymbol{q}_{\boldsymbol{y}}, \boldsymbol{q}_{\boldsymbol{z}}, \boldsymbol{e} \Big) \, \mathrm{d} \boldsymbol{q}_{\boldsymbol{y}} \, \mathrm{d} \boldsymbol{q}_{\boldsymbol{z}} \, \mathrm{d} \boldsymbol{e}$$

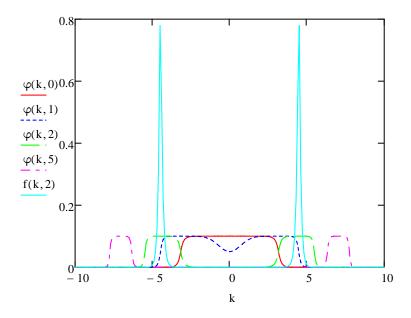


$$\alpha \coloneqq 10 \qquad \beta \coloneqq 0.1 \qquad \qquad f(q,e) \coloneqq \exp \left(-\alpha \cdot \left| \beta \cdot q^2 - e \right| \right)$$

$$f(1,1) = 1.234 \times 10^{-4}$$
 $\Delta := 1$

$$\phi(q,e0) \coloneqq \frac{1}{2 \cdot \Delta} \cdot \int_{e0-\Delta}^{e0+\Delta} f(q,e) \, de$$

$$\phi(1,0) = 0.1 \\ k := -10, -9.9..10$$



$$\text{f1} \Big(\textbf{q}_{\textbf{X}}, \textbf{q}_{\textbf{y}}, \textbf{q}_{\textbf{Z}}, \textbf{e} \Big) \coloneqq \exp \Big[-\alpha \cdot \Big| \beta \cdot \Big(\textbf{q}_{\textbf{X}} \cdot \textbf{q}_{\textbf{X}} + \textbf{q}_{\textbf{y}} \cdot \textbf{q}_{\textbf{y}} + \textbf{q}_{\textbf{Z}} \cdot \textbf{q}_{\textbf{Z}} \Big) - \textbf{e} \Big| \Big]$$

$$\phi \mathbf{1} \Big(q_{_{\boldsymbol{X}}}, e0 \Big) \coloneqq \frac{1}{8 \cdot \Delta^3} \cdot \int_{e0 - \Delta}^{e0 + \Delta} \int_{-\Delta}^{\Delta} \int_{-\Delta}^{\Delta} f\mathbf{1} \Big(q_{_{\boldsymbol{X}}}, q_{_{\boldsymbol{Y}}}, q_{_{\boldsymbol{Z}}}, e \Big) \, \mathrm{d}q_{_{\boldsymbol{Y}}} \, \mathrm{d}q_{_{\boldsymbol{Z}}} \, \mathrm{d}e$$

