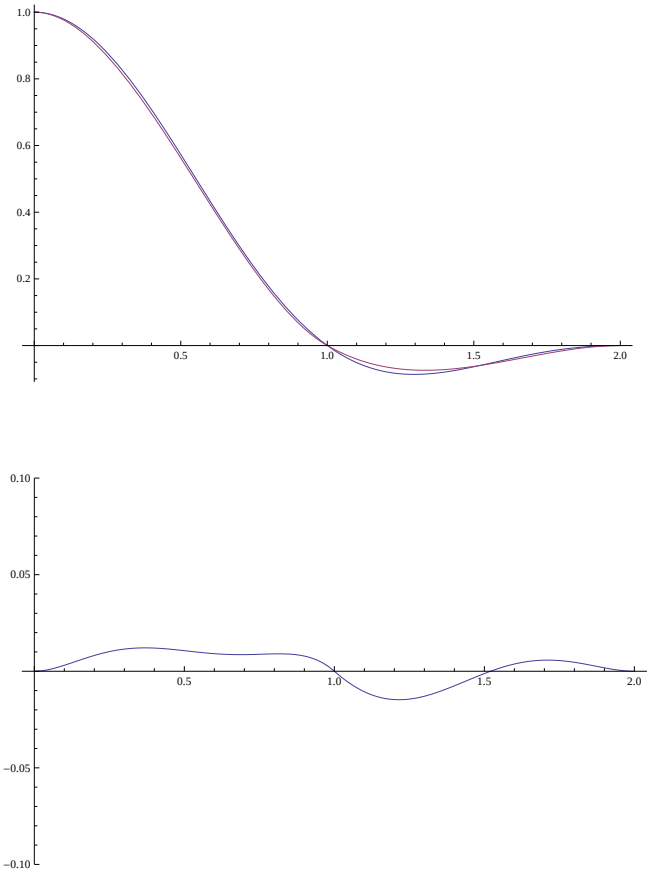
$$W(x) = \begin{cases} 1.5|x|^3 - 2.5|x|^2 + 1 & \text{dla} \quad |x| \leqslant 1 \\ -0.5|x|^3 + 2.5|x|^2 - 4|x| - 2 & \text{dla} \quad 1 < |x| < 2 \\ 0 & \text{dla} \quad |x| \geqslant 2 \end{cases}$$

$$L(x) = \begin{cases} \dfrac{2\sin(\pi x)\,\sin(\pi x/2)}{\pi^2 x^2} & \text{dla} \quad |x| \leqslant 2 \\ 0 & \text{dla} \quad |x| \geqslant 2 \end{cases}$$

Aproksymacja zadana jest przez konwolucję z kernelami $K(x) = W(x)$ lub $L(x)$:

$$\hat{I}(x,y) = \sum_{m=\lfloor x \rfloor - 1}^{\lfloor x \rfloor + 2} \sum_{n=\lfloor y \rfloor - 1}^{\lfloor y \rfloor + 2} I(m,n) K(x-m) K(y-n)$$



Porównanie $L(x)$ i $W(x)$ oraz $L(x) - W(x)$