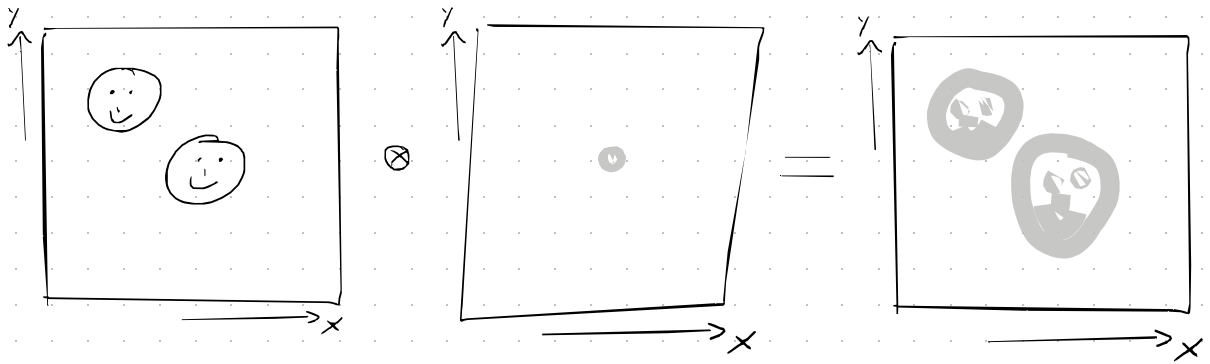
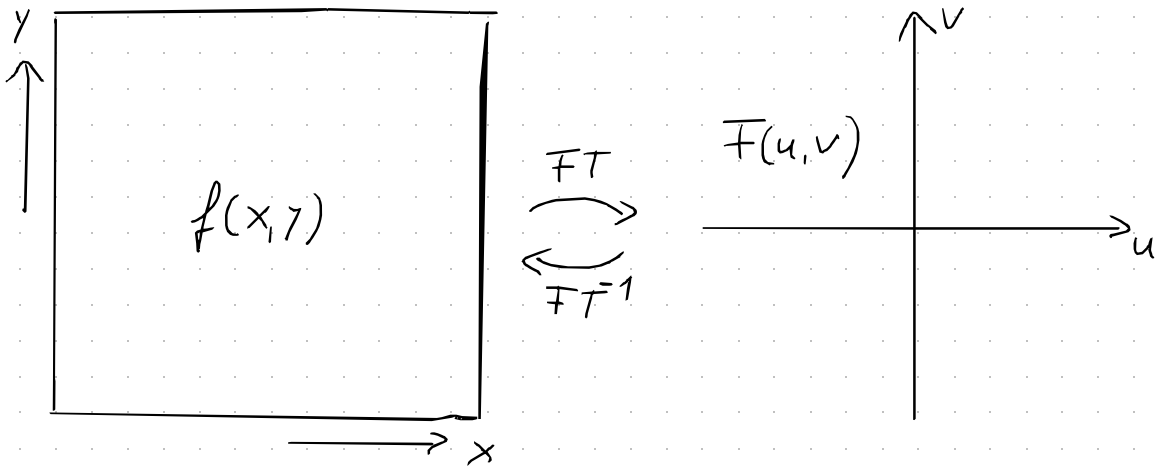
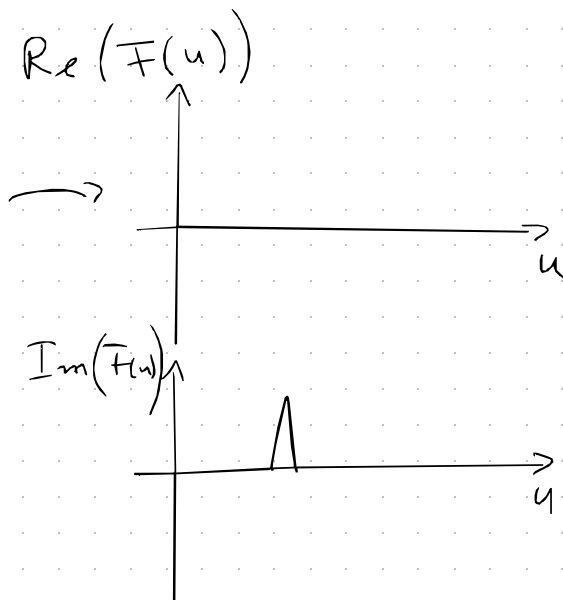
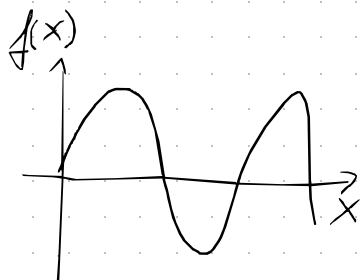
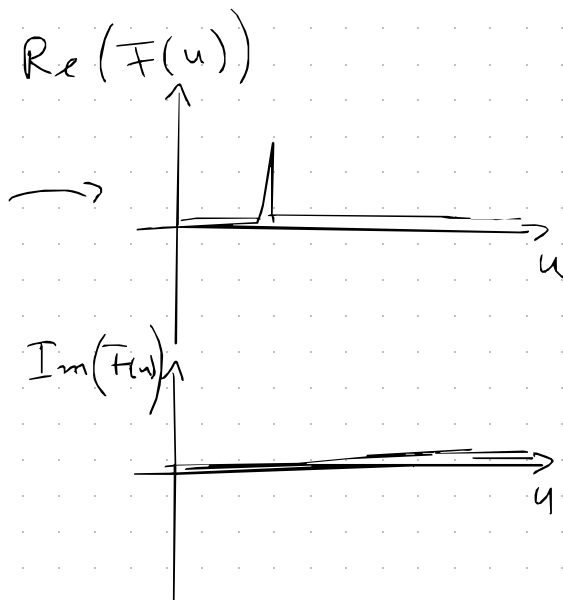
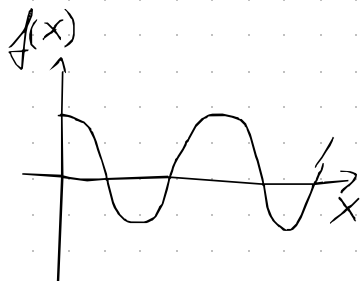
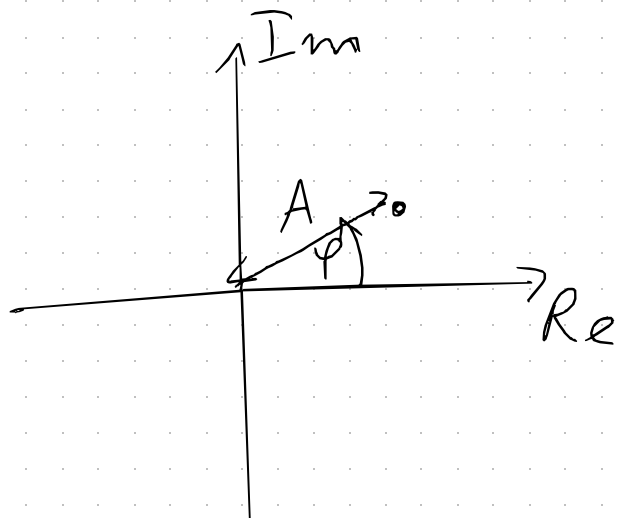
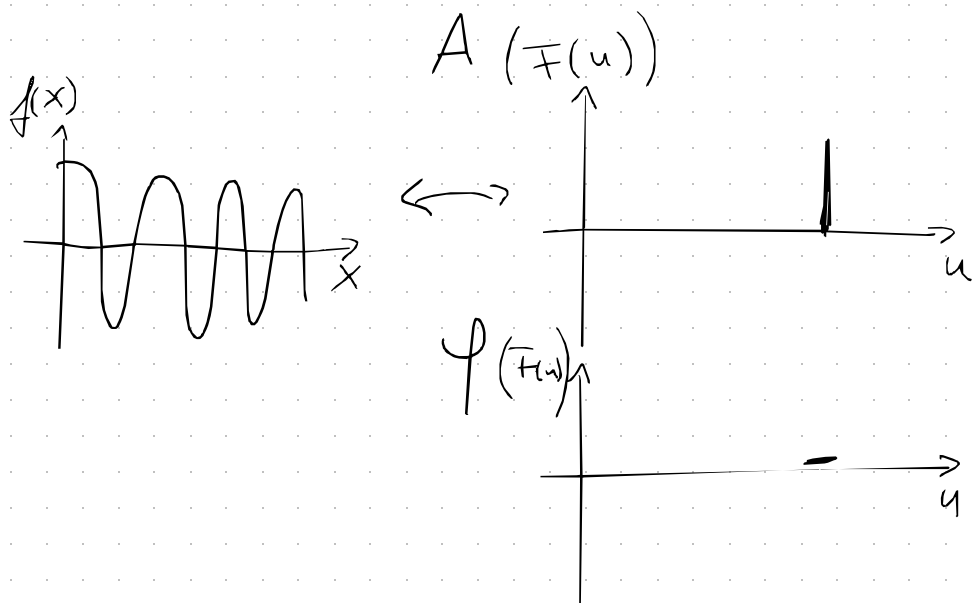


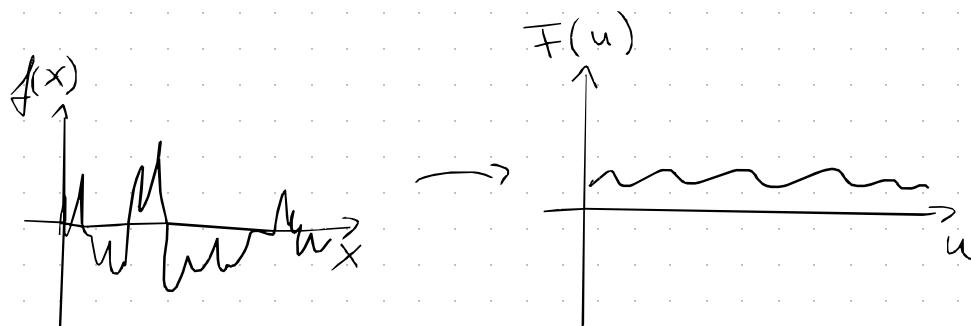
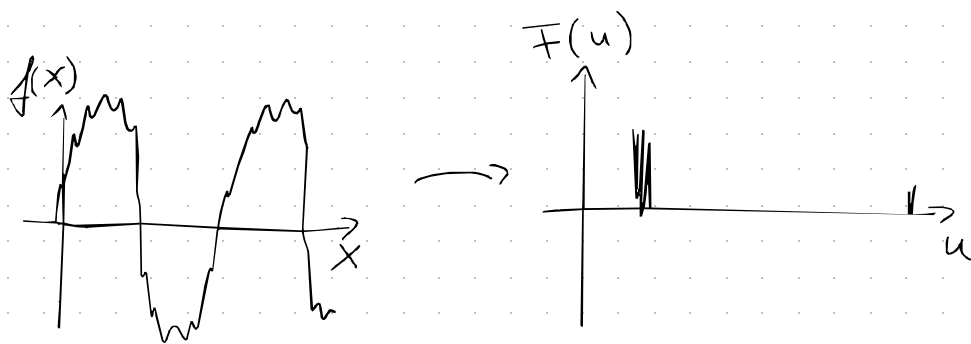
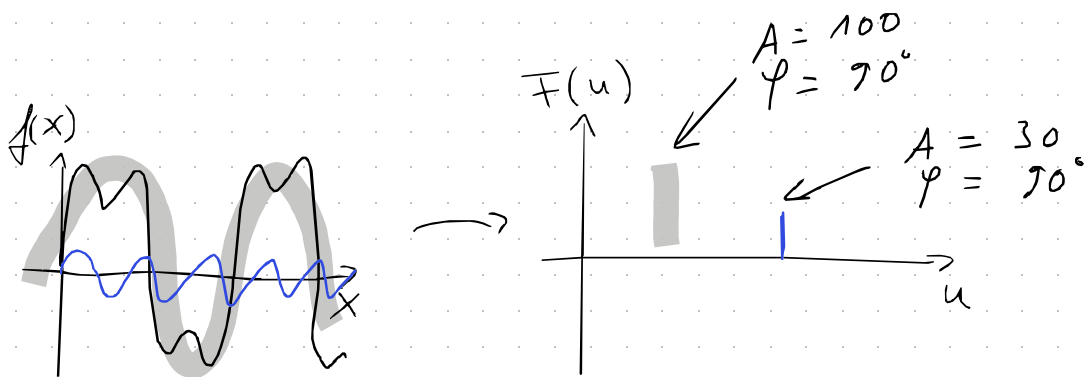
Phys - 468

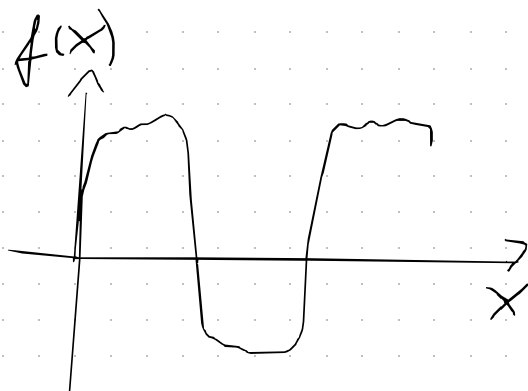
4.3.2025



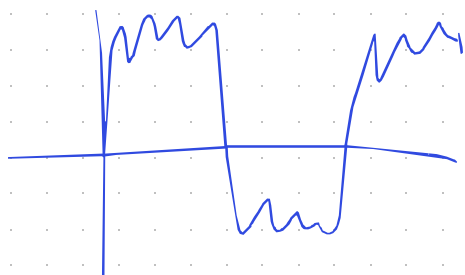
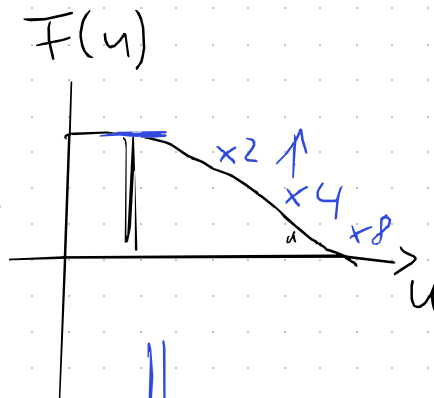




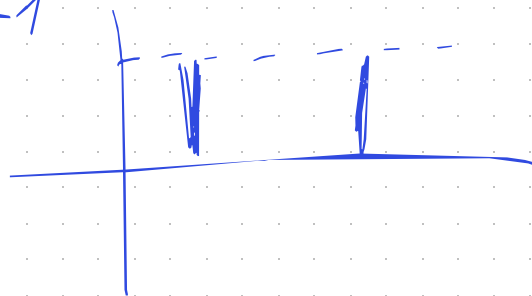


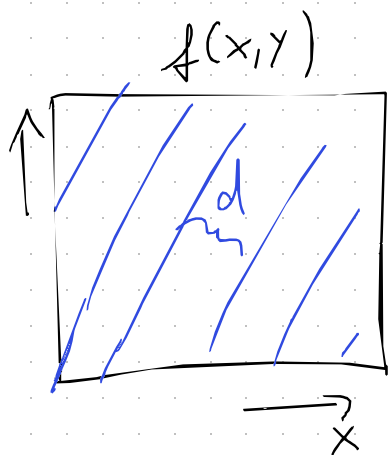


$\mathcal{F}_T \rightarrow$

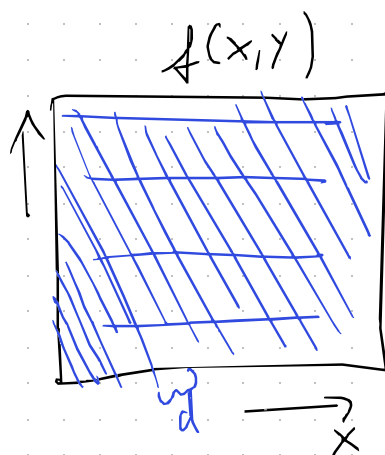
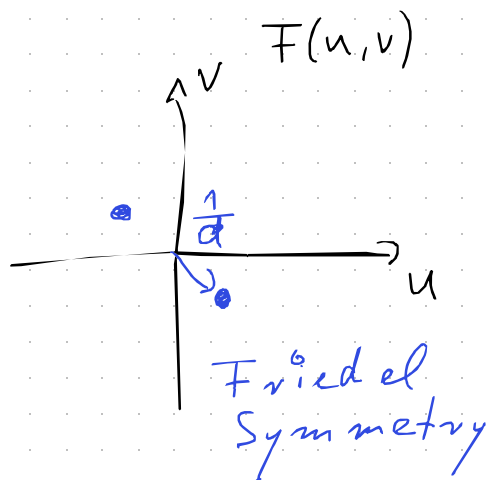


$\mathcal{F}_T^{-1} \leftarrow$

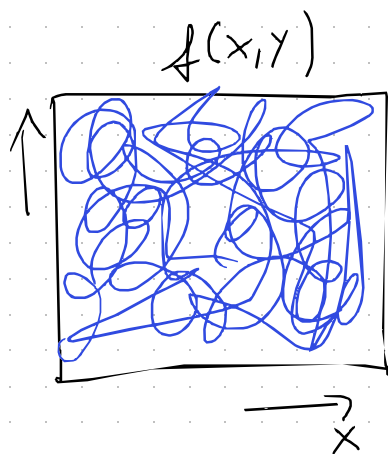
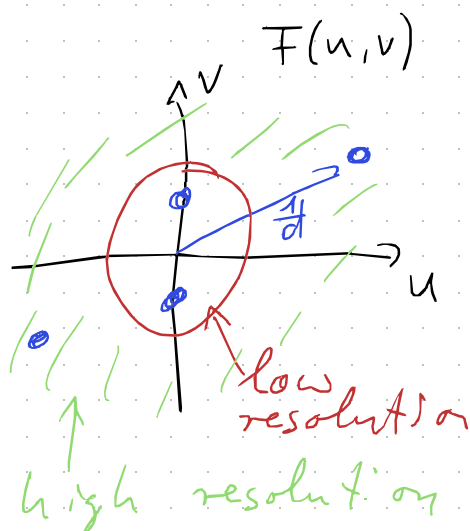




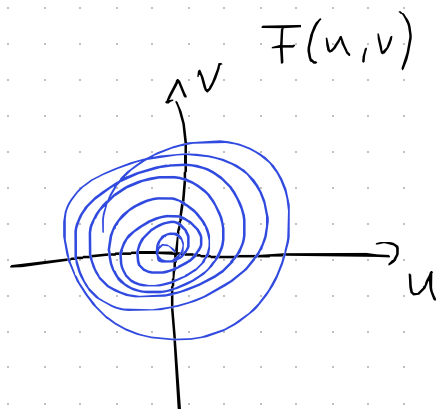
$$\begin{matrix} \xrightarrow{FT} \\ \xleftarrow{FT^{-1}} \end{matrix}$$

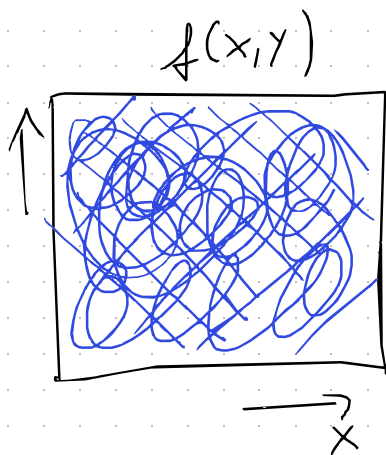


$$\begin{matrix} \xrightarrow{FT} \\ \xleftarrow{FT^{-1}} \end{matrix}$$

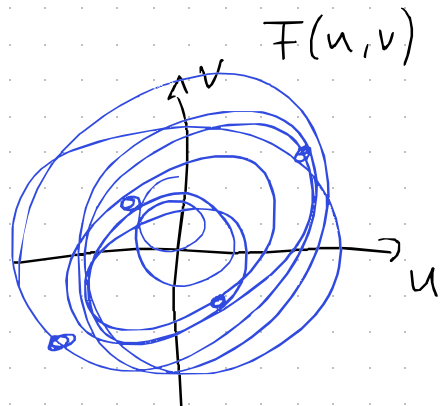


$$\begin{matrix} \xrightarrow{FT} \\ \xleftarrow{FT^{-1}} \end{matrix}$$

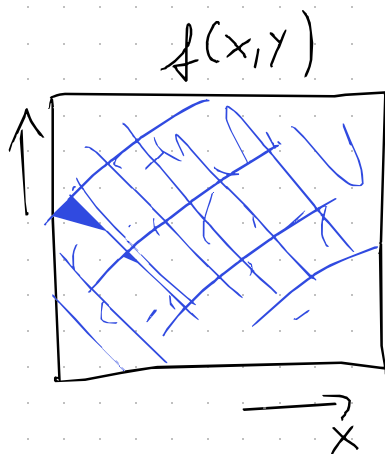




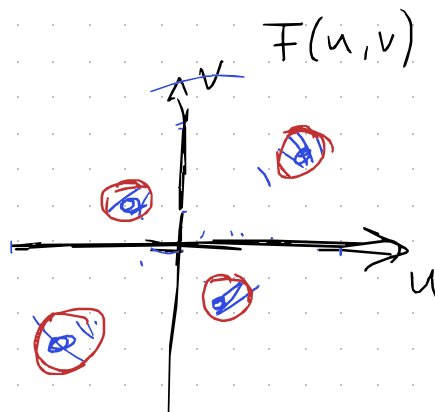
$$\begin{array}{c} \xrightarrow{FT} \\ \xleftarrow{FT^{-1}} \end{array}$$



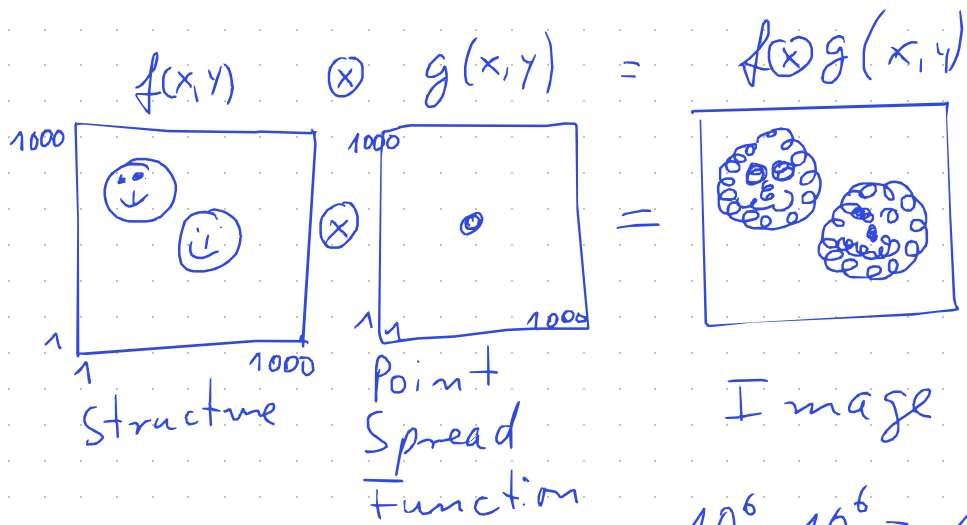
$\Downarrow$  Mask



$$\begin{array}{c} \xrightarrow{FT} \\ \xleftarrow{FT^{-1}} \end{array}$$



# Convolution

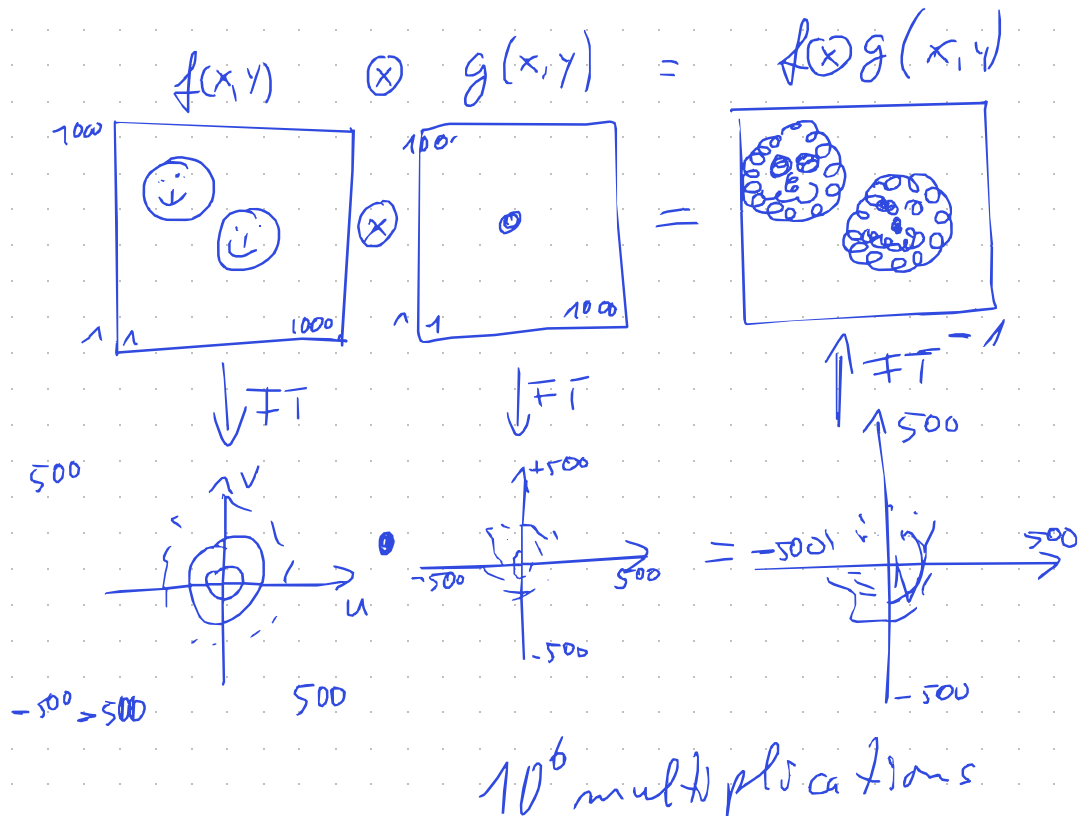
$$f(x,y) \otimes g(x,y) = f \otimes g(x,y)$$


Structure

Point Spread Function

Image

$$10^6 \cdot 10^6 = 10^{12} \text{ multi-plications}$$

$$f(x,y) \otimes g(x,y) = f \otimes g(x,y)$$


Structure

Point Spread Function

Image

FFT

FT<sup>-1</sup>

500

-500

500

500

-500

10<sup>6</sup> multi-plications

