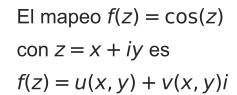
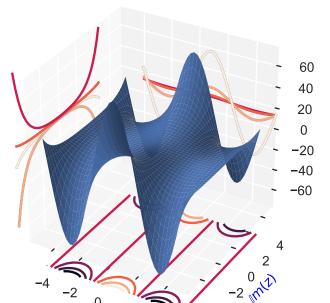
$$\mathbb{R}e(f(z))$$



$$u(x,y) = \cos(x)\cosh(y)$$

$$v(x, y) = -\sin(x)\sinh(y)$$

$$\Re e(f(z)) = \cos(x)\cosh(y)$$



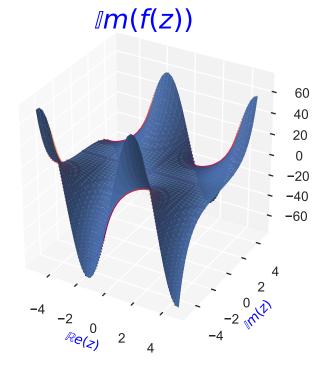
El mapeo
$$f(z) = \cos(z)$$

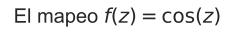
con $z = x + iy$ es
 $f(z) = u(x, y) + v(x, y)i$

$$u(x,y) = \cos(x)\cosh(y)$$

$$v(x, y) = -\sin(x)\sinh(y)$$

$$Im(f(z)) = -\sin(x)\sinh(y)$$





$$con z = x + iy es$$

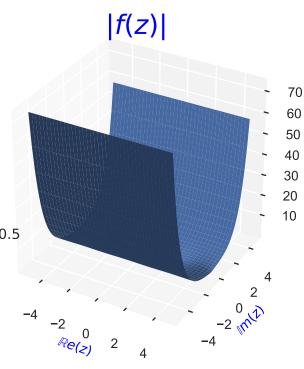
$$f(z) = u(x, y) + v(x, y)i$$

con

$$u(x,y) = \cos(x)\cosh(y)$$

$$v(x,y) = -\sin(x)\sinh(y)$$

$$|f(z)| = (\sin^2(x)\sinh^2(y) + \cos^2(x)\cosh^2(y))^{0.5}$$



El mapeo
$$f(z) = \cos(z)$$

$$con z = x + iy es$$

$$f(z) = u(x, y) + v(x, y)i$$

con

$$u(x, y) = \cos(x)\cosh(y)$$

$$v(x,y) = -\sin(x)\sinh(y)$$

$$\angle f(z) = - \operatorname{atan}(\operatorname{tan}(x)\operatorname{tanh}(y))$$

