**Section 16: Working with Images with Python**

**23.03.**

**126. Working with Images with Python**

Images can be manipulated with Pillow library, which is a fork of the PIL

PIL = Python Imaging Library

If loaded images are too big, the iopub\_data\_rate\_limit of the notebook can be increased

img = Image.open(path) to open an image

img.size to get the width and height of the image

the cropping can be performed with img.crop((x, y, w, h))

The above coordinates are for the top left corner

Img.paste(im=img2, box=(x, y)), where x and y are the coordinates of the top left corner

The image can be resized with img.resize((new\_width, new\_height))

The image can be rotated with img.rotate(angle)

The transparency can be set with img.putalpha(value), where value is between 0 and 255

To store an image: img.save(path)

When paste is used with a mask, the areas under black in the mask are shown

To invert the colors for the mask:

mask = mask.convert(‘L’)

mask = ImageOps.invert(mask)