

If you have an 2D or 3D field with $\text{SIZE}_{\text{IN}} \times \text{SIZE}_{\text{IN}}$, and apply CNNs, the

$$\text{SIZE}_{\text{OUT}} = \frac{\text{SIZE}_{\text{IN}} + 2\text{PADDING} - \text{KERNEL}}{\text{STRIDES}} + 1 \quad (1)$$

For Transposed convolutional neural nets the expression reads

$$\text{SIZE}_{\text{OUT}} = (\text{SIZE}_{\text{IN}} - 1)\text{STRIDES} - 2\text{PADDING} + \text{KERNEL} \quad (2)$$

When training CNNs, the dimensions of the images to input into the network should be

$$[\text{BATCH SIZE}, \text{CHANNELS}, \text{HEIGHT}, \text{WIDTH}] \quad (3)$$