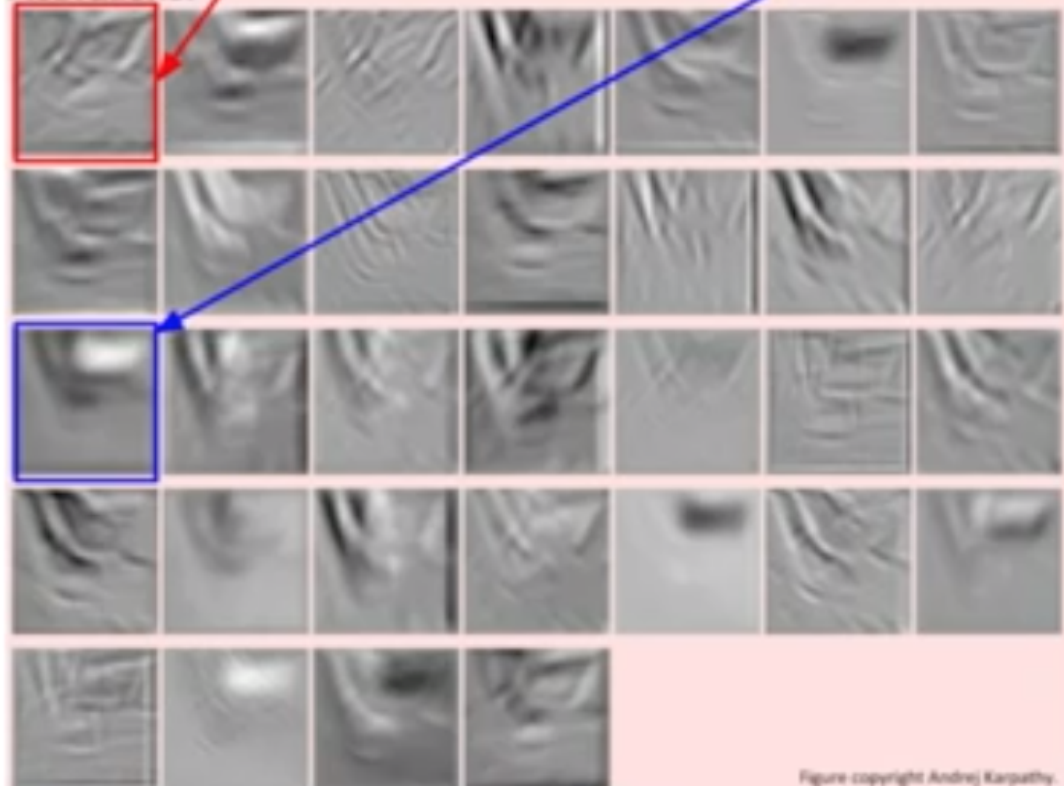




one filter =>  
one activation map

example 5x5 filters  
(32 total)

Activations:



We call the layer convolutional  
because it is related to convolution  
of two signals:

$$f[x,y] * g[x,y] = \sum_{n_1=-\infty}^{\infty} \sum_{n_2=-\infty}^{\infty} f[n_1,n_2] \cdot g[x-n_1,y-n_2]$$



elementwise multiplication and sum of  
a filter and the signal (image)