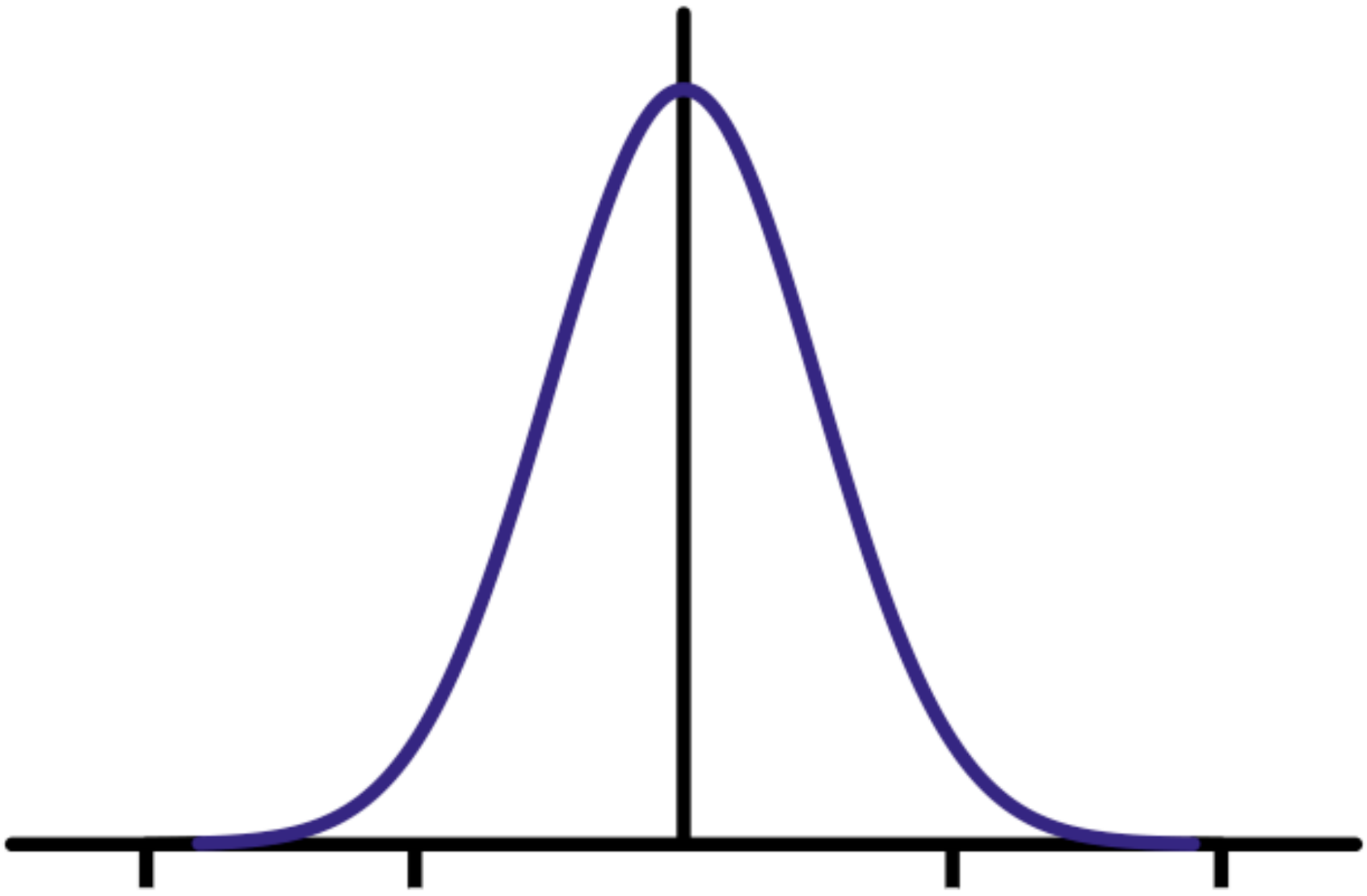
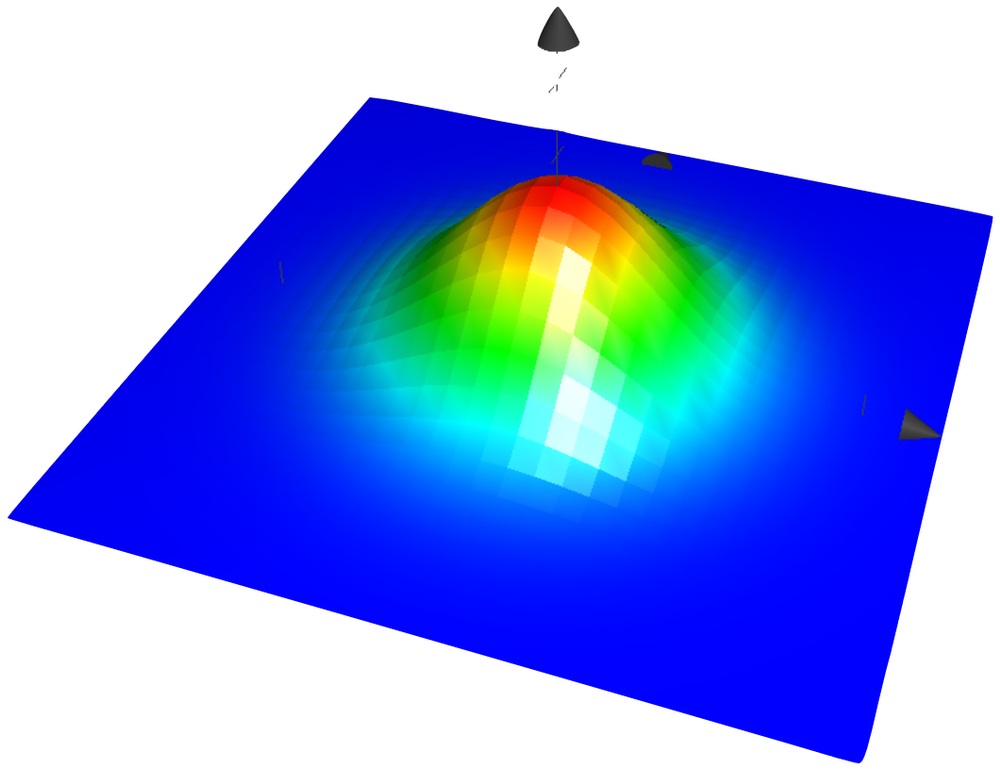


Gaussian Filter

The Gaussian filter



A Gaussian kernel gives less weight to pixels further from the center of the window

$$h(u,v) = \frac{1}{2\pi\sigma^2} e^{-\frac{(u^2+v^2)}{\sigma^2}}$$

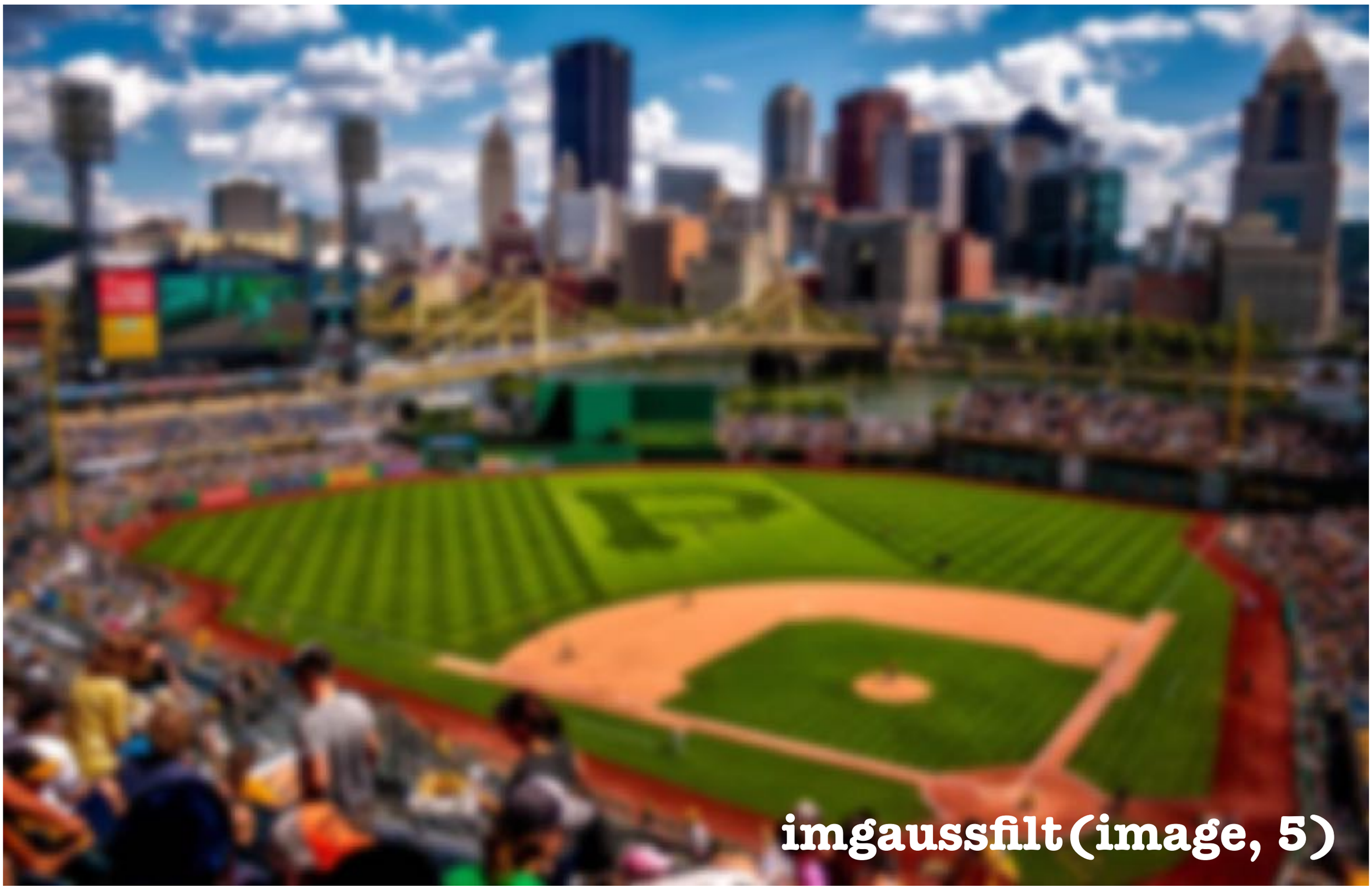
$\frac{1}{16}$

1	2	1
2	4	2
1	2	1

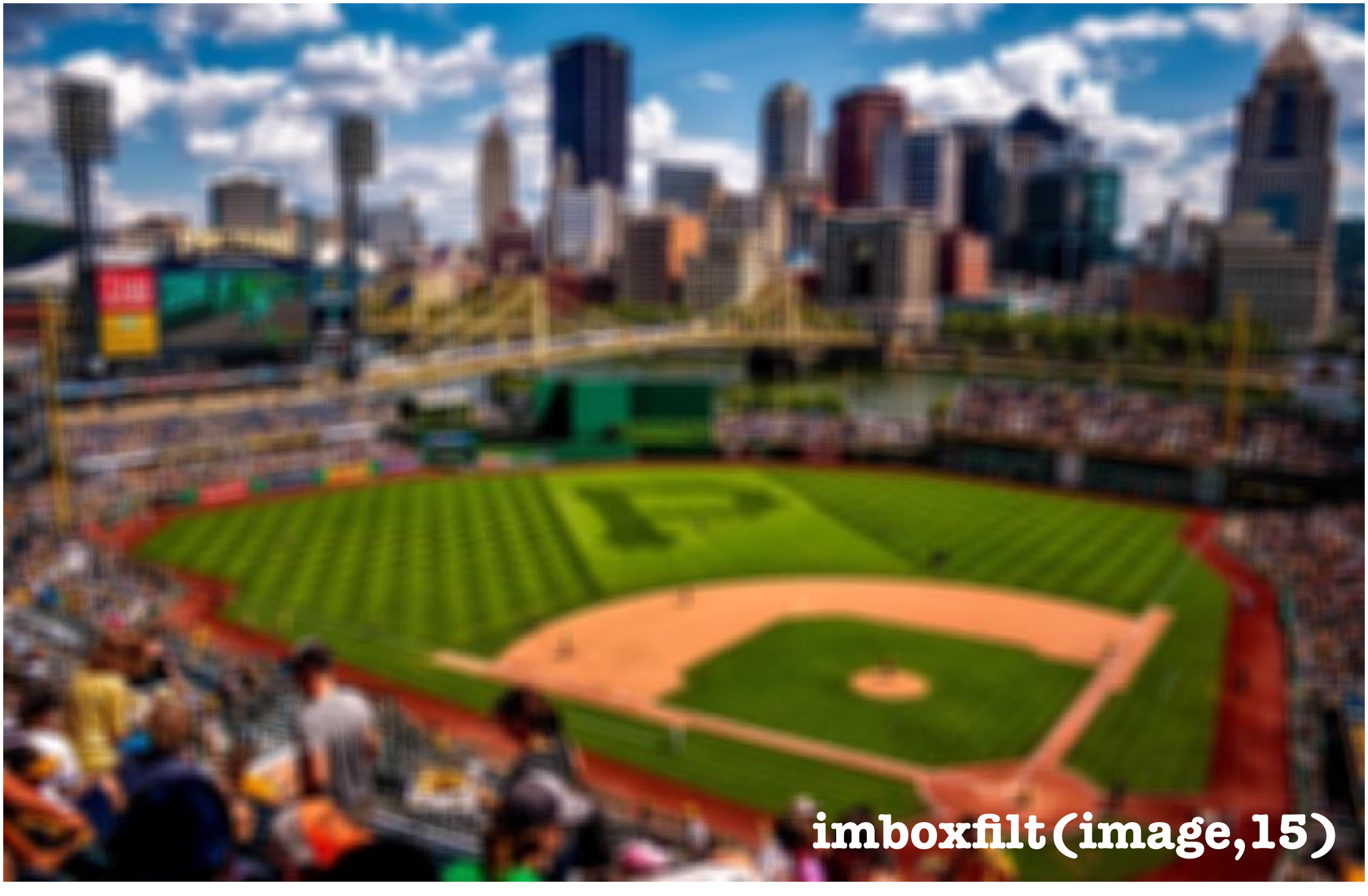
This 3 x 3 kernel is an approximation of a 2D Gaussian function

Gaussian Filtering versus Box Filter

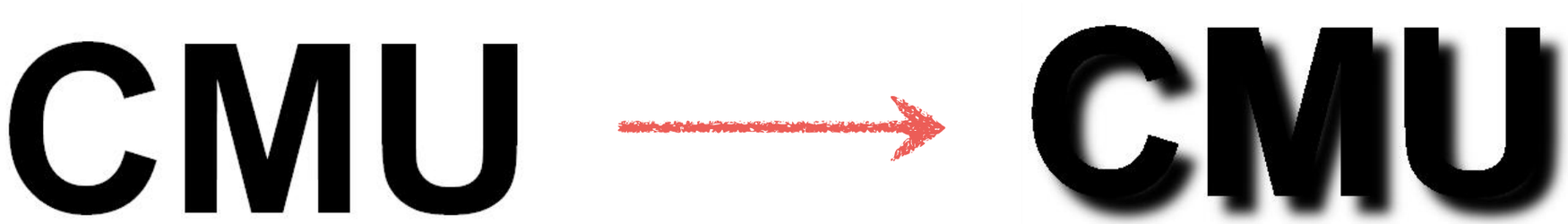
Gaussian Filtering versus Box Filter



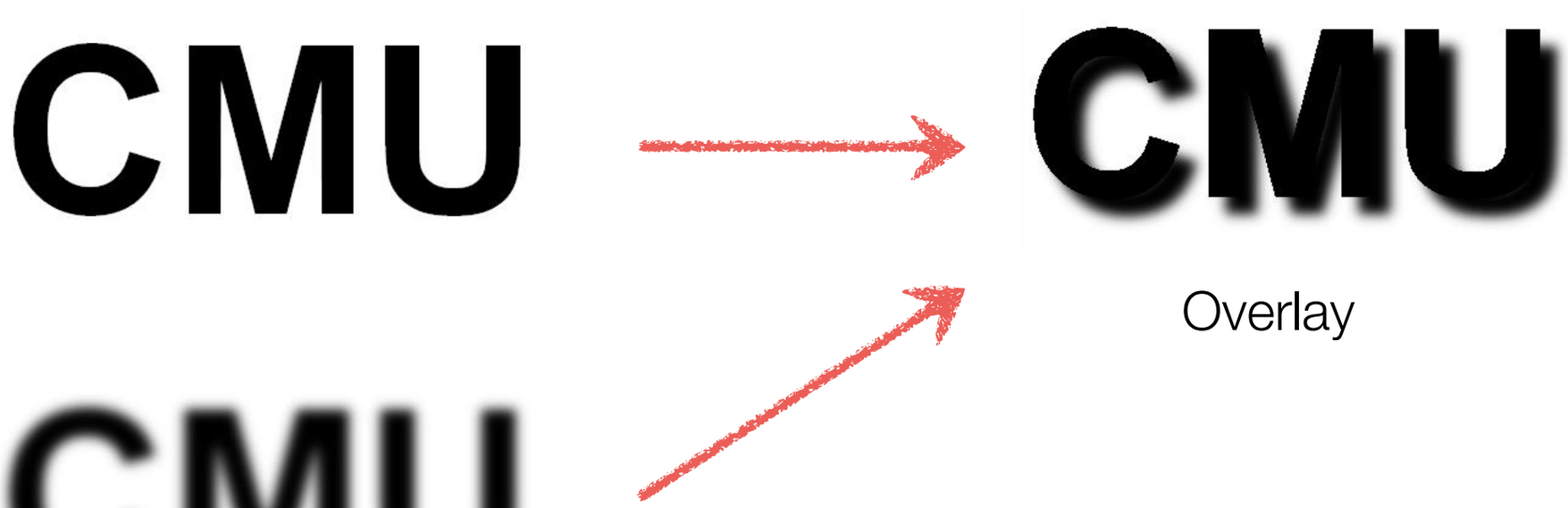
Gaussian Filtering versus Box Filter



How would you create a shadow effect?



How would you create a shadow effect?



How would you create a soft focus effect?

How would you create a soft focus effect?

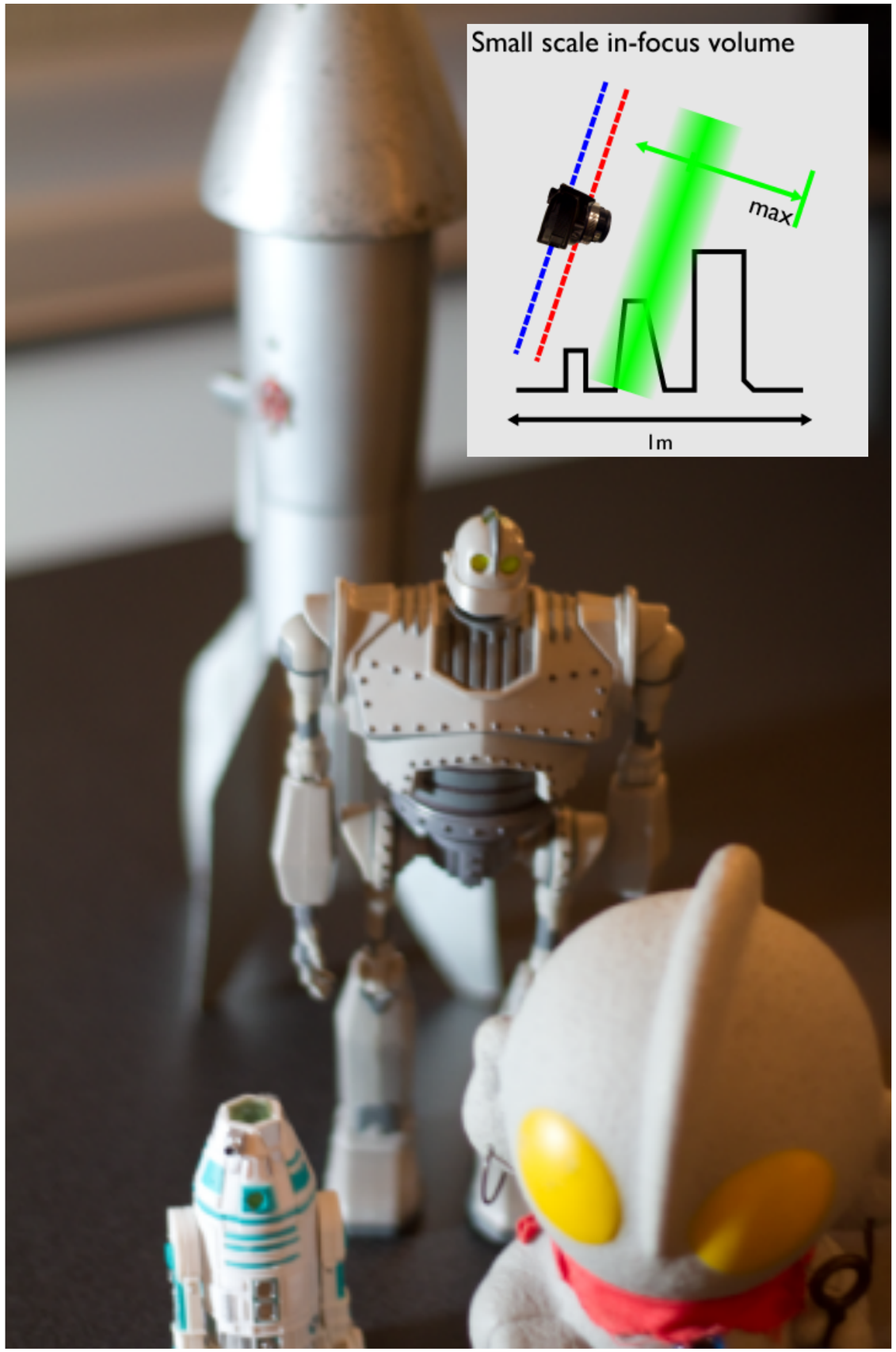
0.5

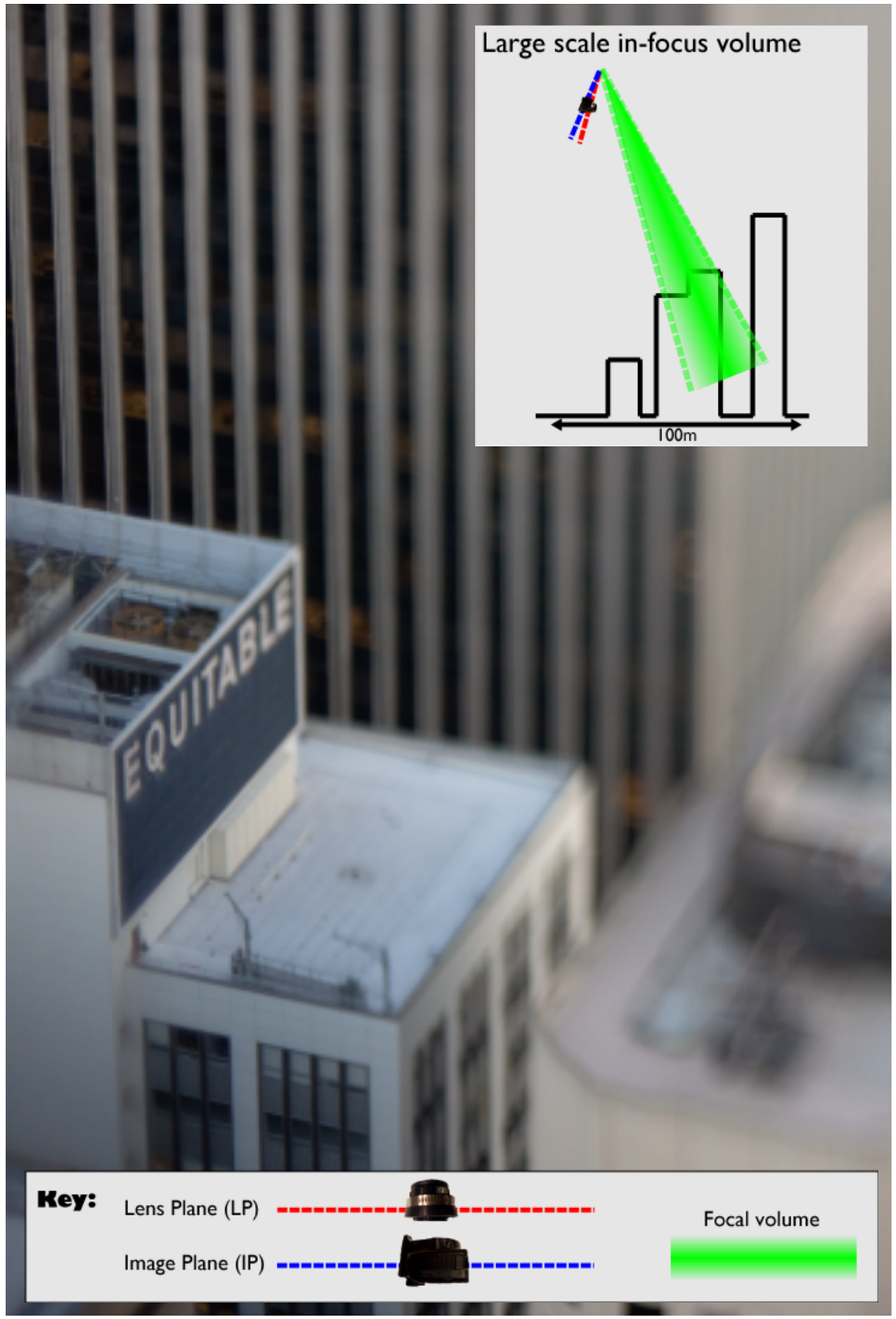
0.5

Gaussian blurred

Tilt Shift Effect

http://www.flickr.com/photos/ender079/2704450659/





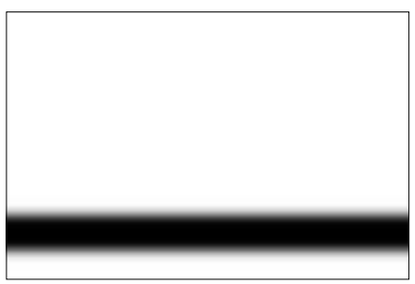
http://cow.mooh.org/projects/tiltshift/howdoesitwork.html#miniaturisationeffect

How would you create a (super low-budget) tilt-shift effect?

http://farm8.staticflickr.com/7061/6867631897_f8377709b9_z.jpg

How would you create a (super low-budget) tilt-shift effect?

weight



*

Gaussian blurred

Pixel wise multiply

\+

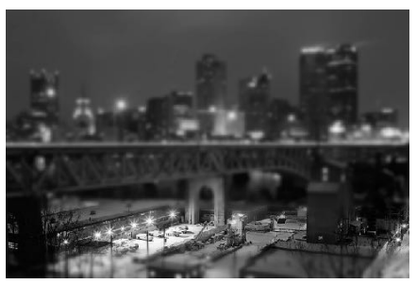
1.0 - weight

Pixel wise add

*

Original

=



Tell me everything wrong with this wannabe tilt-shift image