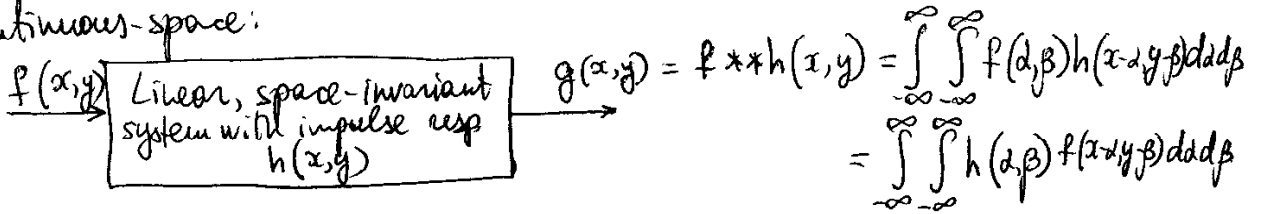


Displaying (e.g., in MATLAB, using colormap gray):
 Smaller $f(m,n)$ correspond to darker shades of gray.

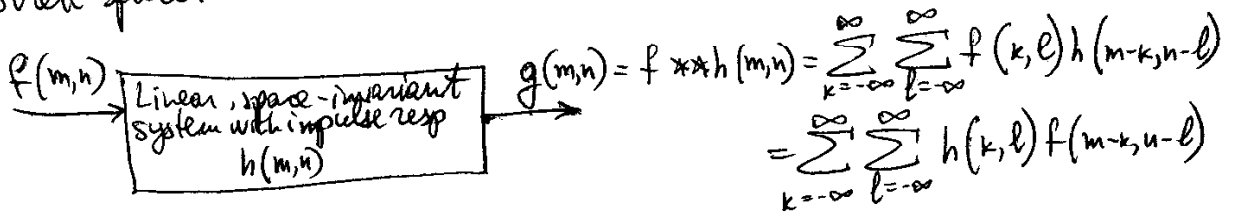
(2)

Convolution:

Continuous-space:



Discrete-space:



~~Example 1~~
 Example 1

		1	2	3	4	5	n
0	0	0.2	0	0.2	0	0	
1	0	0	0	0	0	0	
2	0	0	1	1	1	1	
3	0	0	1	0.9	1	1	
4	0	0	1	1	1	1	
5	0	0	1	1	1	1	
m							

$f(m,n)$

		-1	0	1	n
0	0	1	0	0	
1	1	4	1	0	
2	0	1	0	0	
m					

$h(m,n)$

2	8	4	2	0	
0	1	10	11	10	10
0	10	60	69	70	60
0	10	69	77	79	70
0	10	71	83	81	70
0	10	60	71	70	60

~ blurring
~ border effects

$$g(m,n) = \frac{1}{8} f(m,n) + \frac{1}{8} f(m-1,n) + \frac{1}{8} f(m+1,n) + \frac{1}{8} f(m,n-1) + \frac{1}{8} f(m,n+1)$$

To get $g(m,n) = f * h(m,n)$,

- Flip h both horizontally and vertically
- Slide it over f , to superimpose $h(0,0)$ and $f(m,n)$, to calculate $g(m,n)$
- Pretend that $f(m,n) = 0$ outside of its boundaries (in this case, outside $0 \leq m,n \leq 5$).