



Universidade Federal de Santa Catarina (UFSC)
Campus Araranguá (ARA)
Disciplina: Tópicos III
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T2: Filtros Lineares

1 Dataset

Utilizaremos 2 figuras para realizar os experimentos.

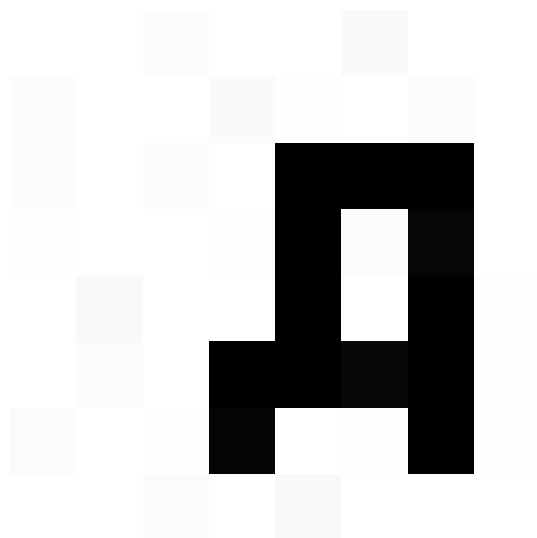


Figura 1: Teste.



Figura 2: Maçã

2 Filtro Blur

Iremos variar a densidade e o tamanho do Kerneis para convoluir na imagem.

Kernel 1:

$$\begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix}$$

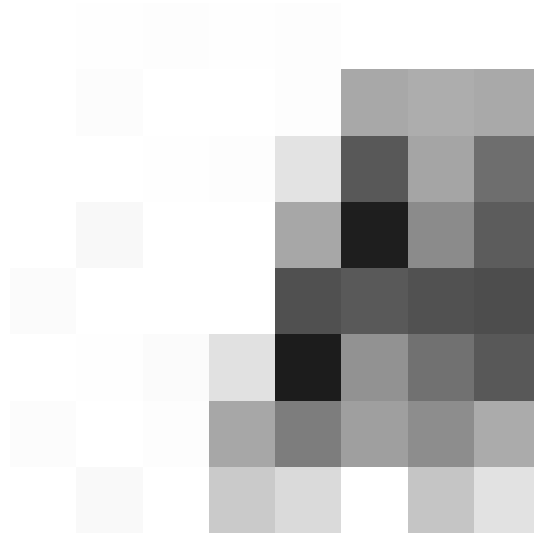


Figura 3:



Figura 4:

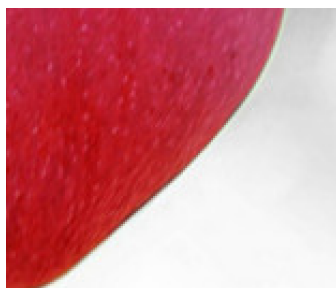


Figura 5:

Kernel 2:

$$\begin{vmatrix} 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \end{vmatrix}$$

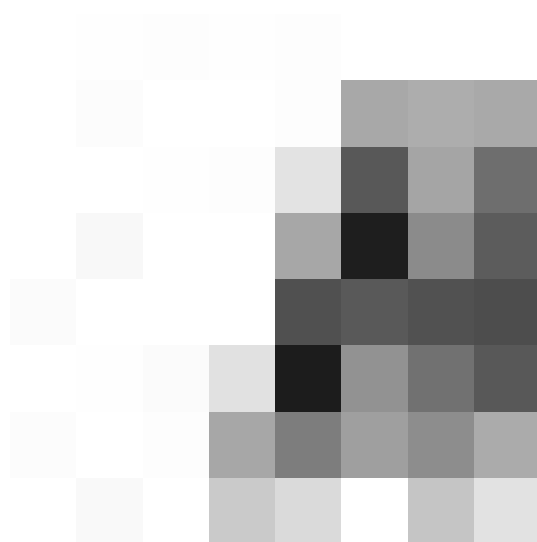


Figura 6:



Figura 7:

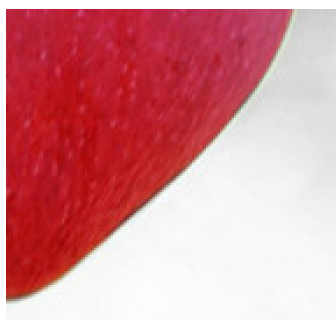


Figura 8:

Kernel 3:

$$\begin{vmatrix} 1 & 2 & 2 & 1 & 1 \\ 2 & 4 & 4 & 4 & 2 \\ 2 & 4 & 8 & 4 & 2 \\ 2 & 4 & 4 & 4 & 2 \\ 1 & 2 & 2 & 2 & 1 \end{vmatrix}$$

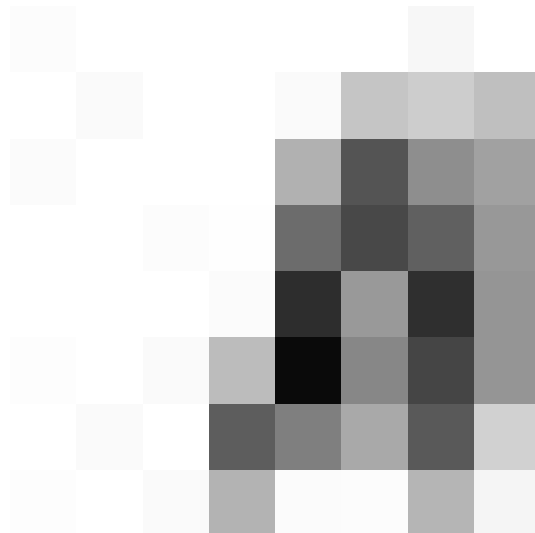


Figura 9:



Figura 10:



Figura 11: