

KERATECH

INTRODUCCIÓN AL PROCESAMIENTO DE IMÁGENES

EDWIN MENDOZA

AGENDA

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Modelos de color

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Variación de la resolución espacial



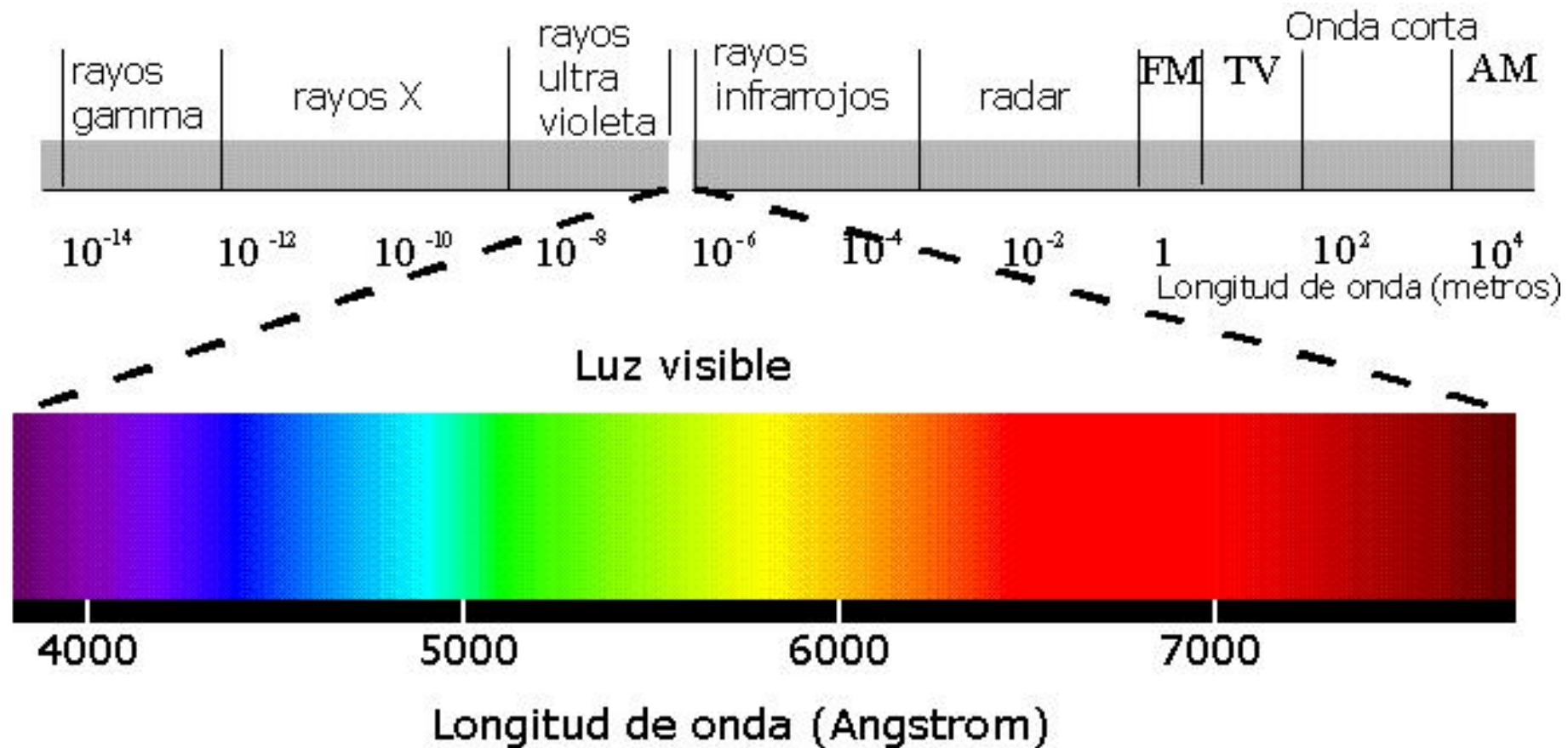
01

Modelos de Color

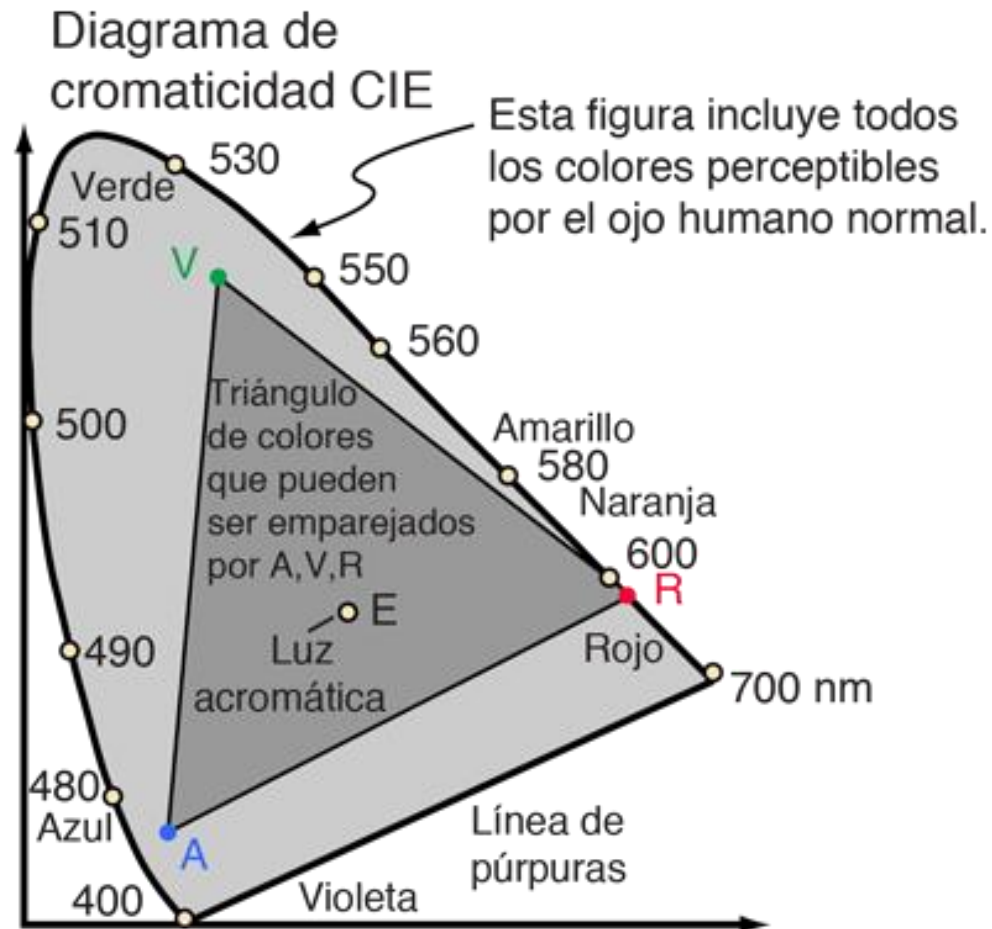


¿Qué es el color?

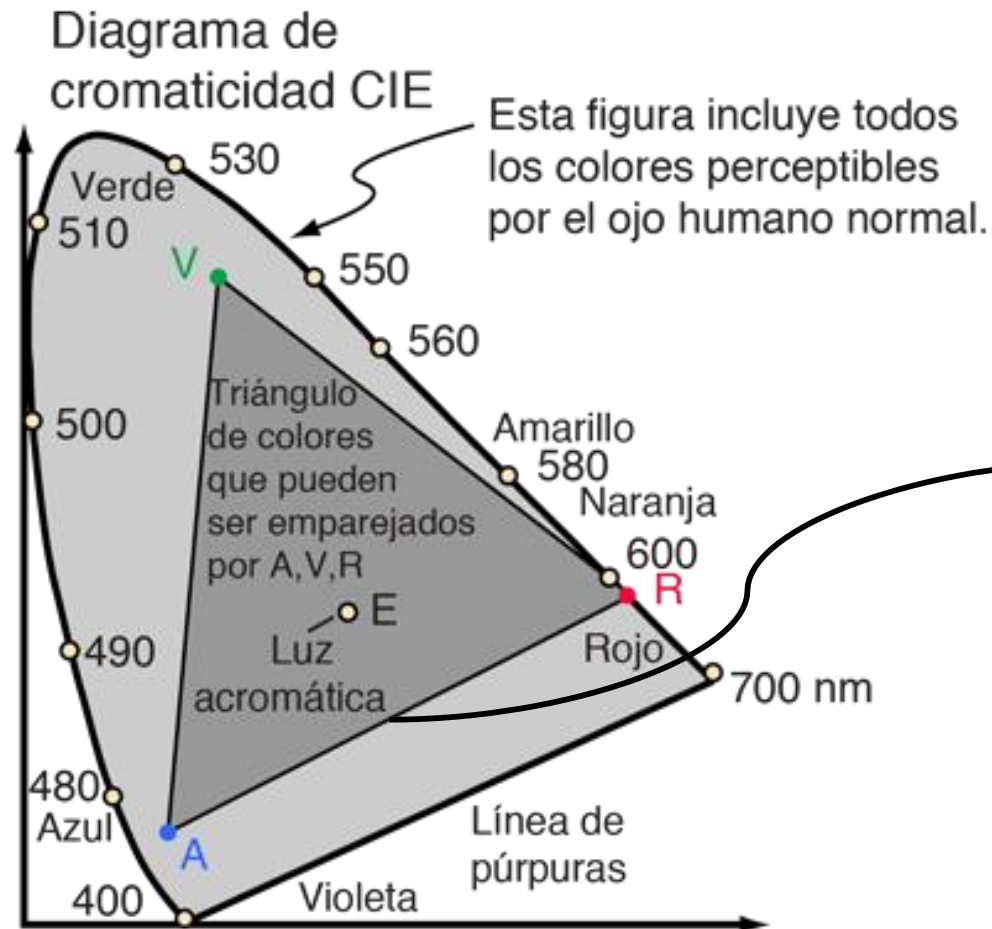
Espectro Electromagnético



Modelo de color

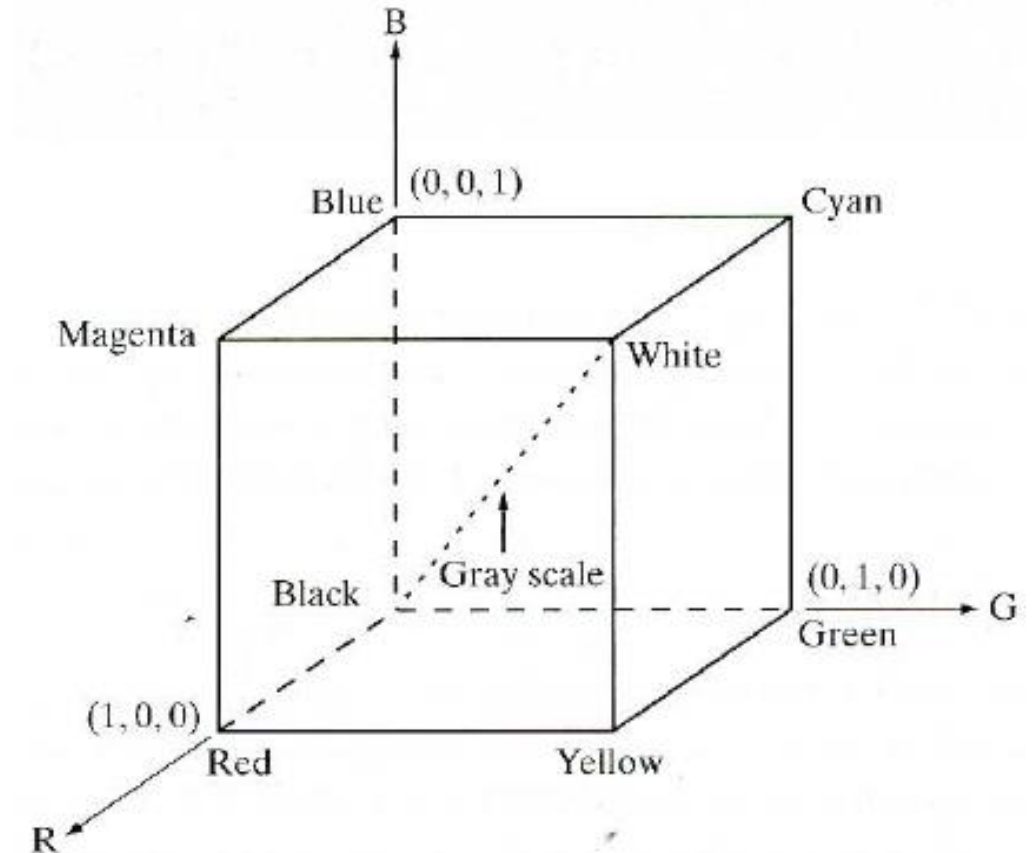
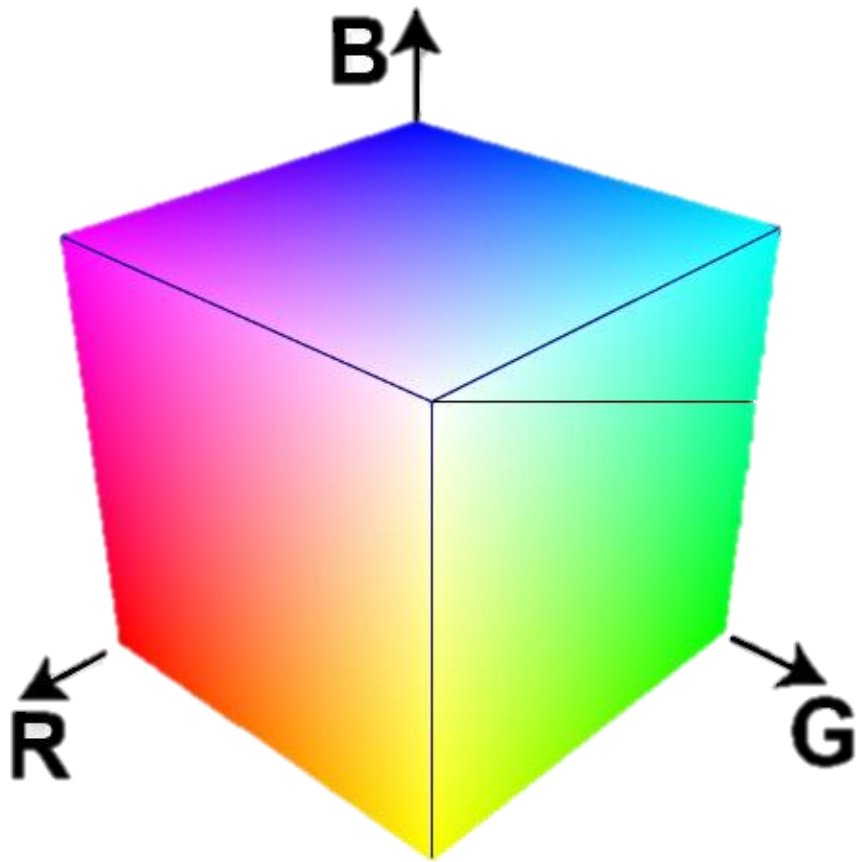


Modelo de color



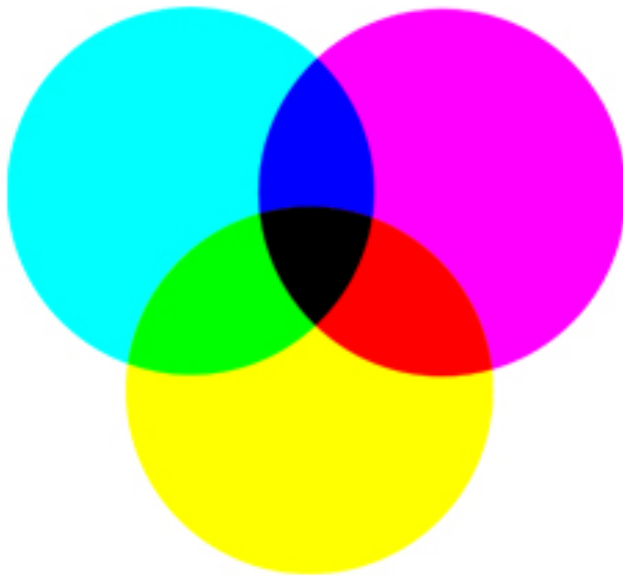
El triángulo muestra el rango de valores típicos producidos por un monitor RGB

Modelo de color - RGB

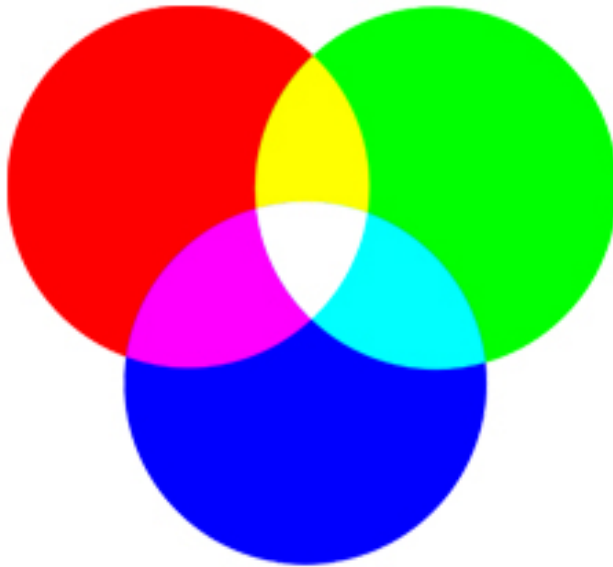


Modelo de color - CMYK

CMYK

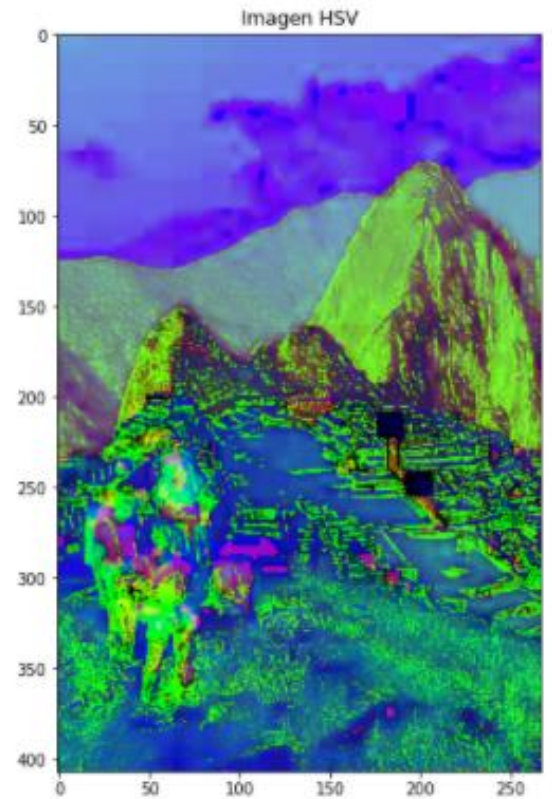
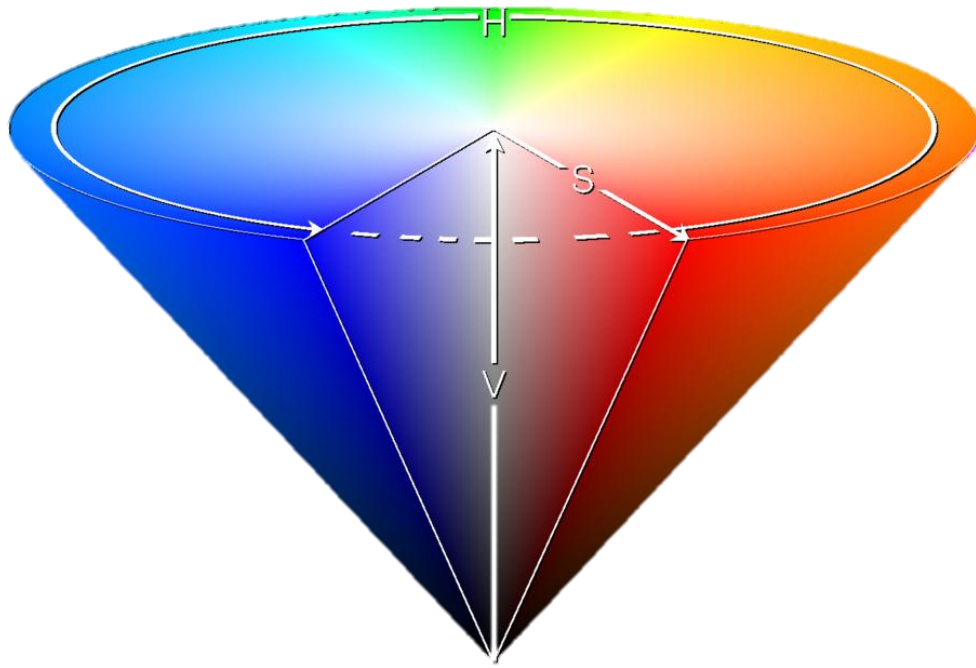


RGB

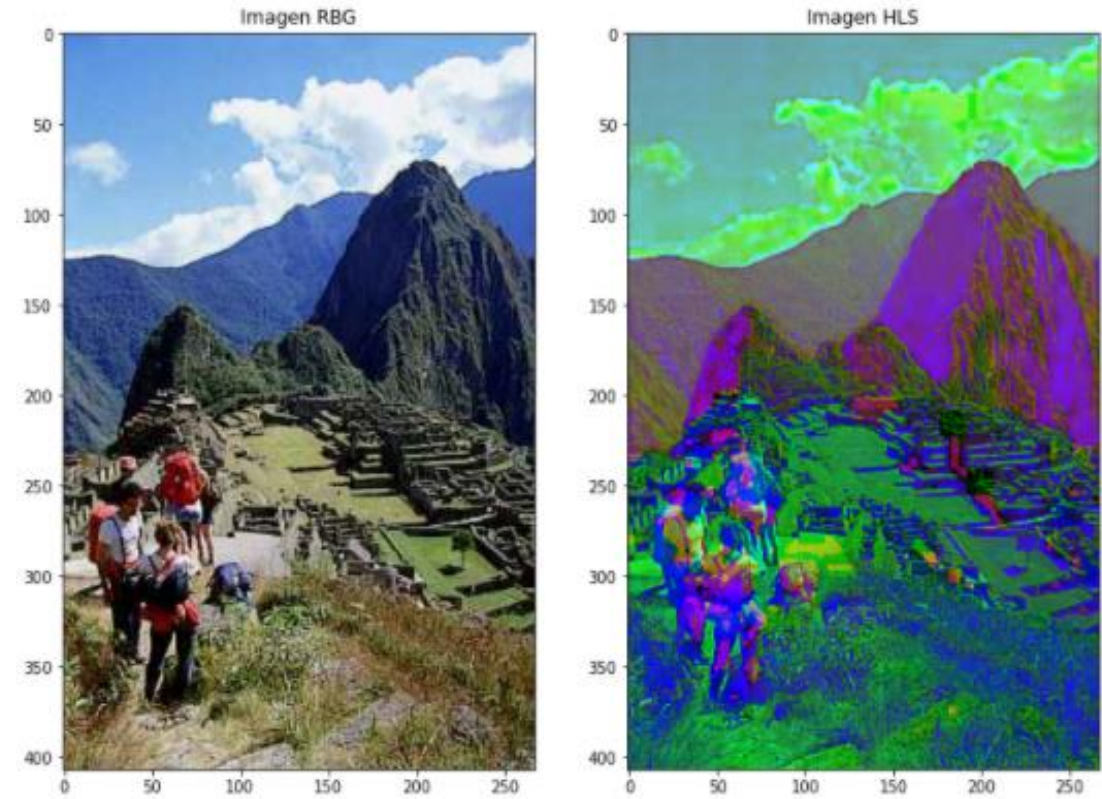
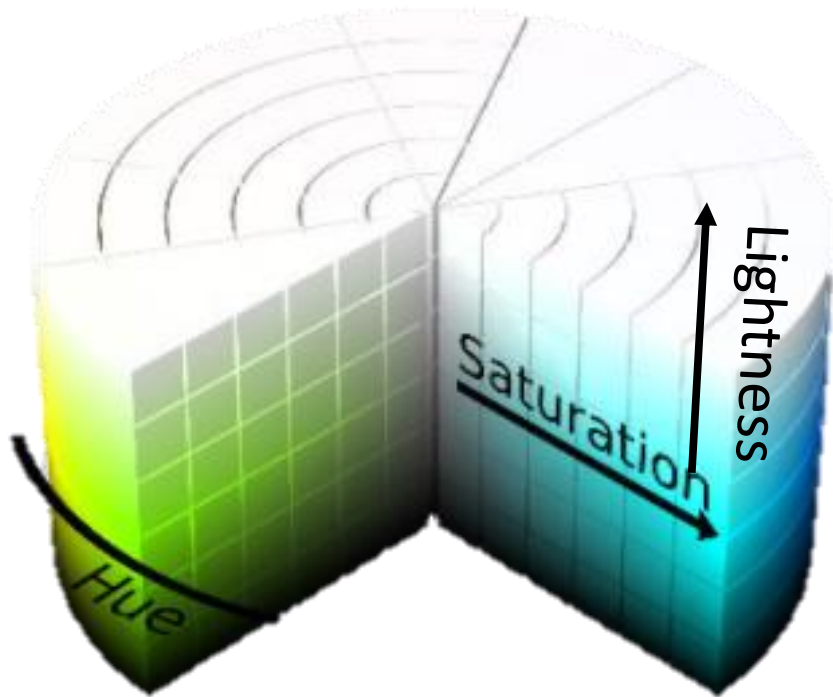


$$\begin{bmatrix} C \\ M \\ Y \end{bmatrix} = \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} - \begin{bmatrix} R \\ G \\ B \end{bmatrix}$$

Modelo de color - HSV



Modelo de color - HLS

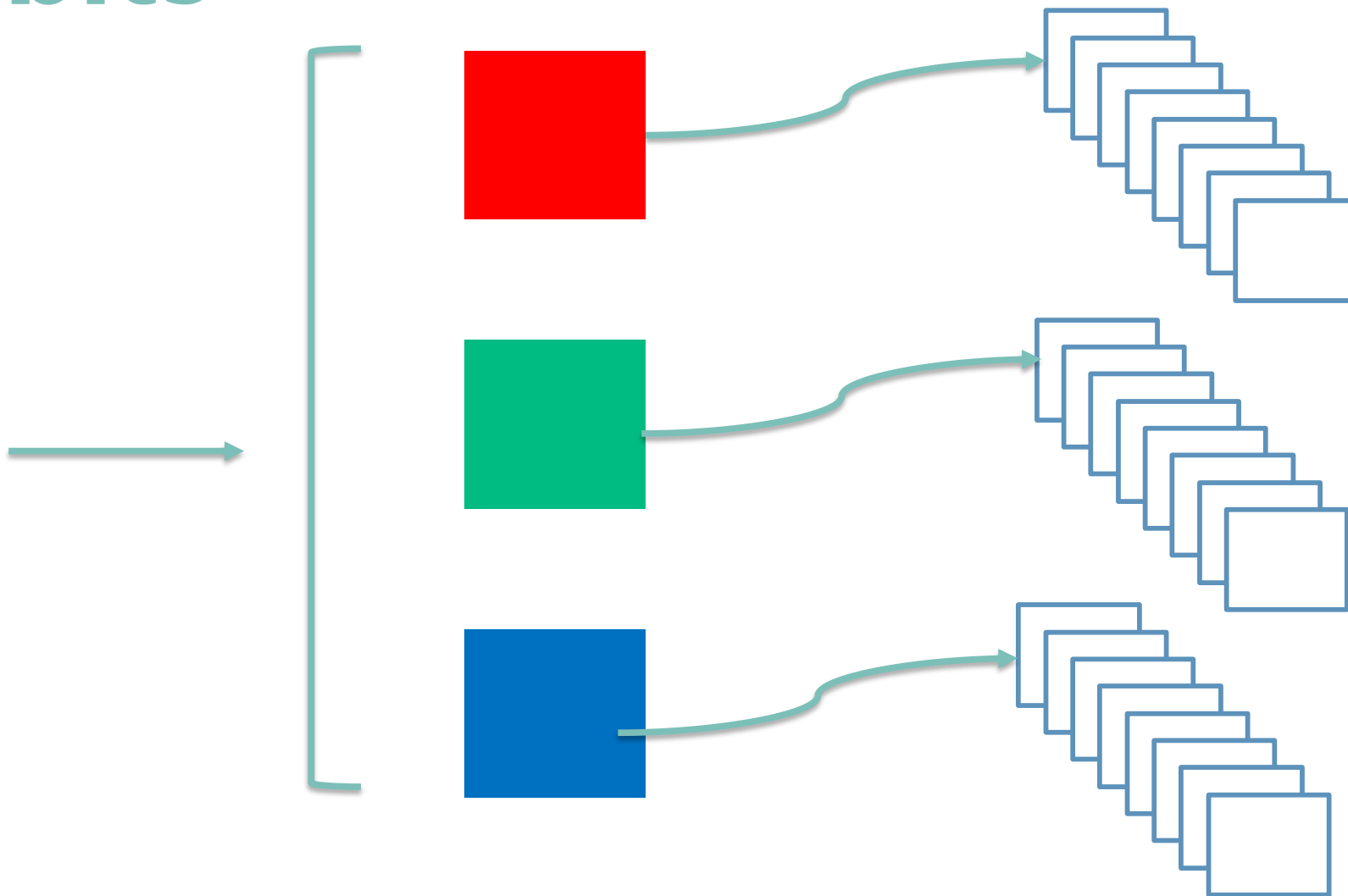




02

Recuantización

Planos de bits



Planos de bits

1	1	0	1	0	0	1	1
---	---	---	---	---	---	---	---

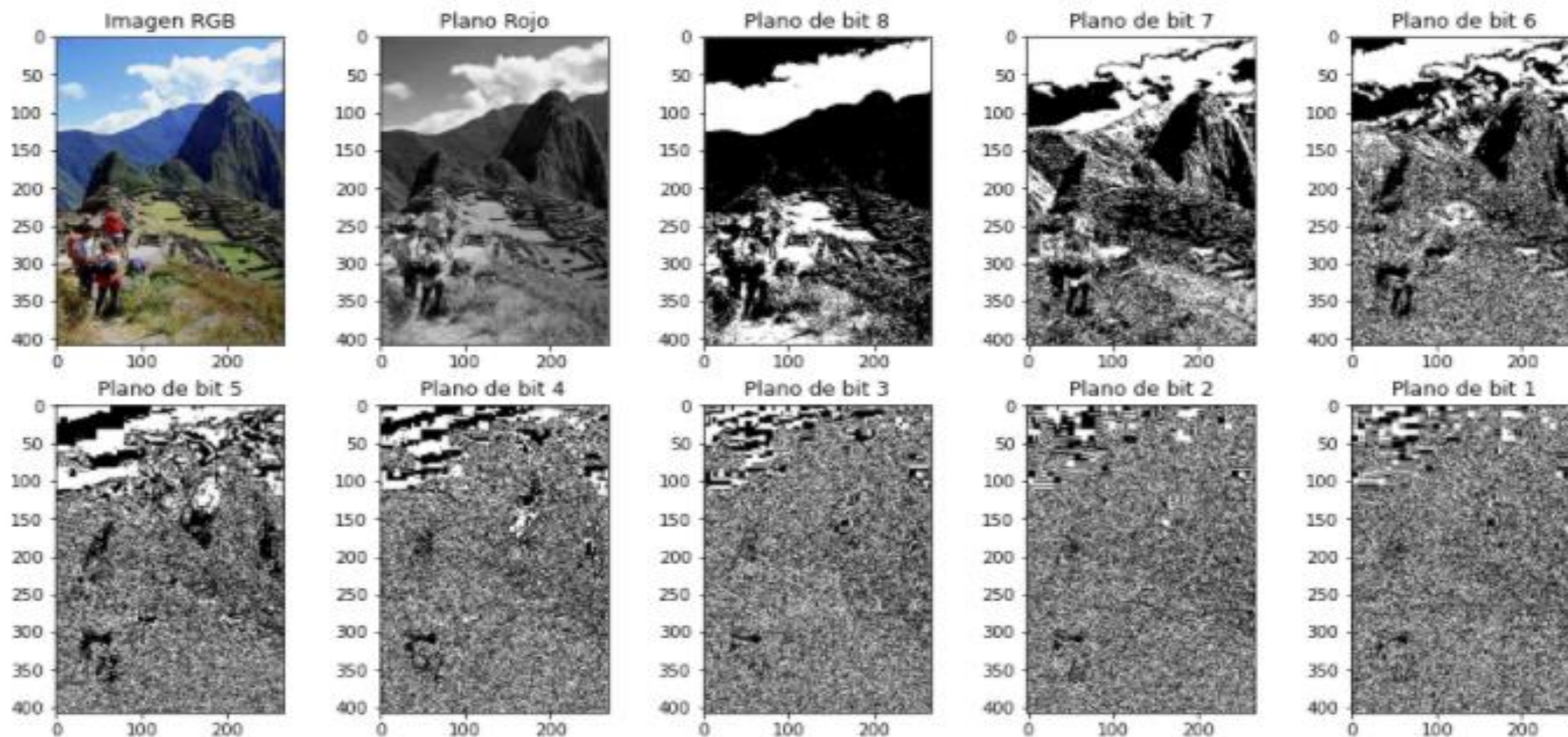
&

0	1	0	0	0	0	0	0
---	---	---	---	---	---	---	---



0	1	0	0	0	0	0	0
---	---	---	---	---	---	---	---

Planos de bits



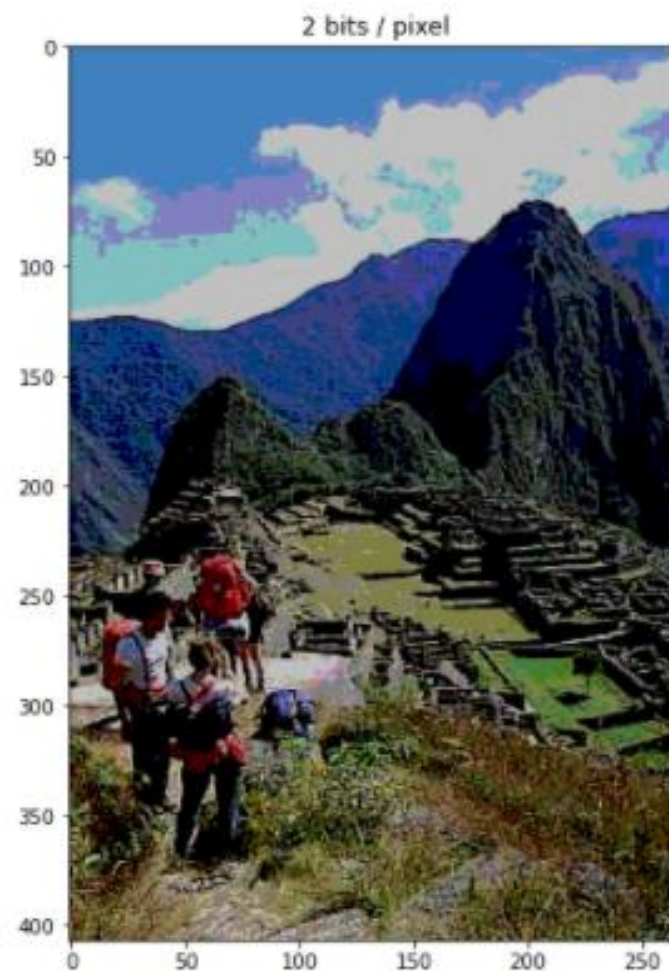
Recuantización



Recuantización



Recuantización



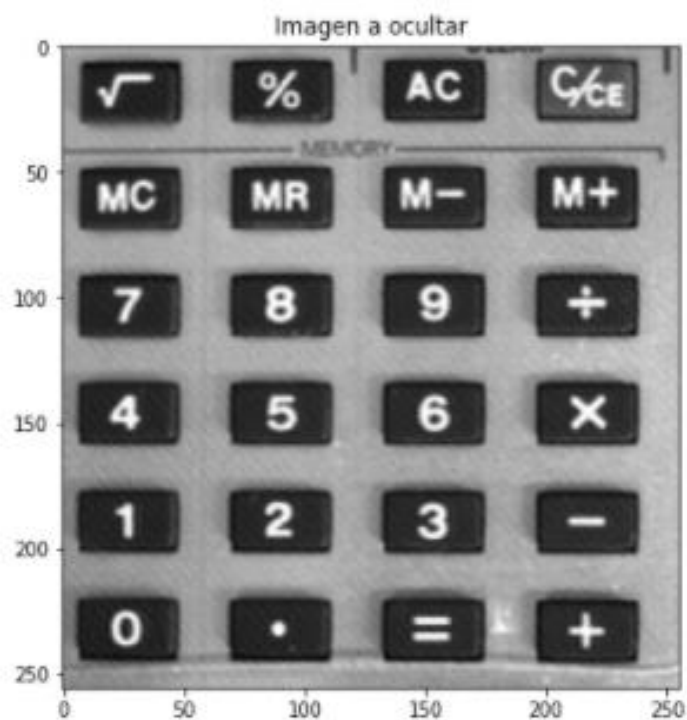
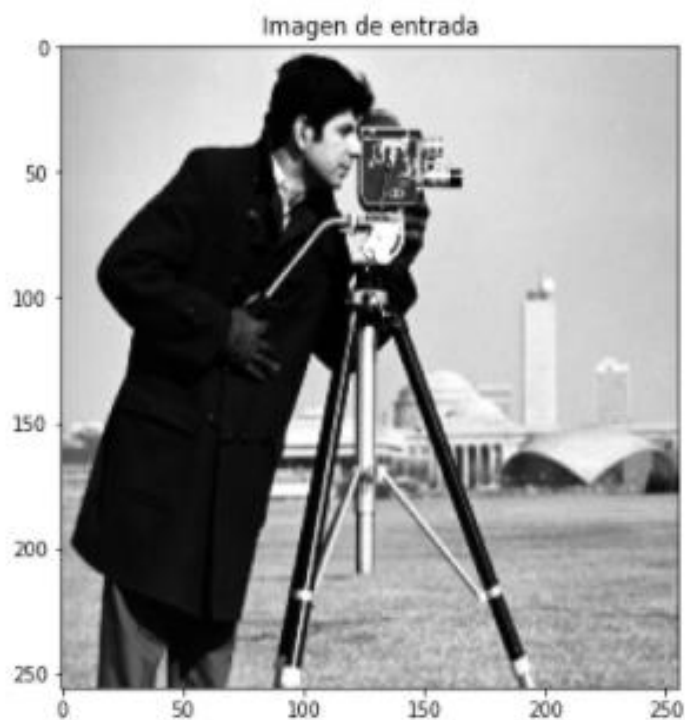
Escanografía

1	1	0	1	0	0	1	1
---	---	---	---	---	---	---	---

1	1	0	0	1	1	0	0
---	---	---	---	---	---	---	---

1	1	0	1	0	1	1	0
---	---	---	---	---	---	---	---

Escanografía

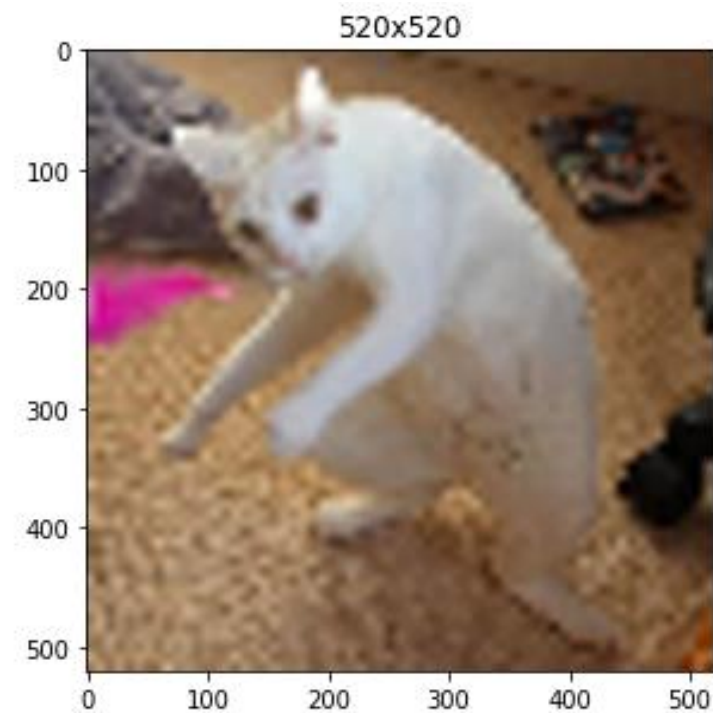
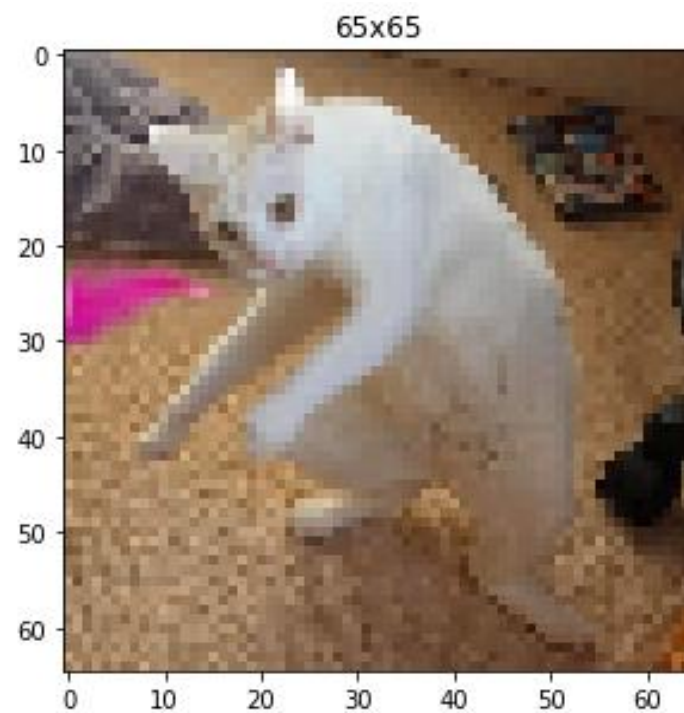
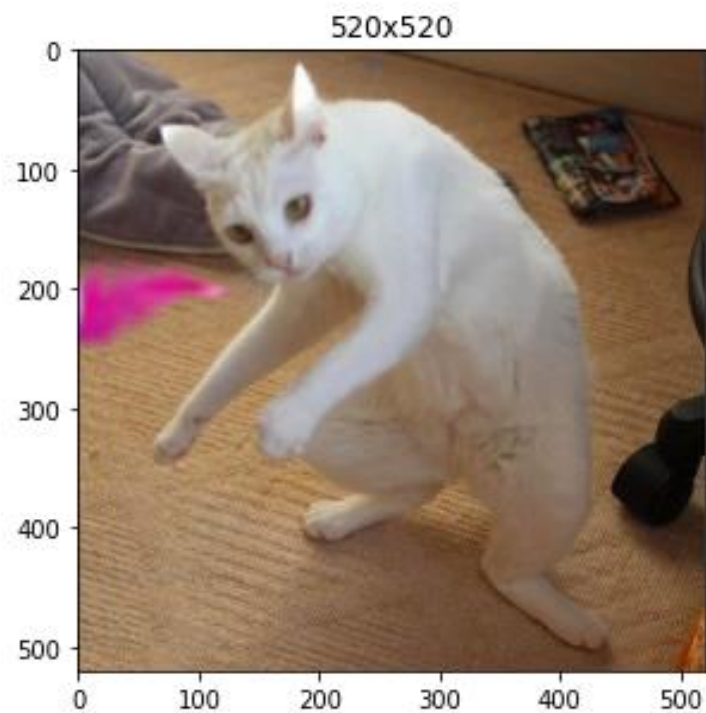




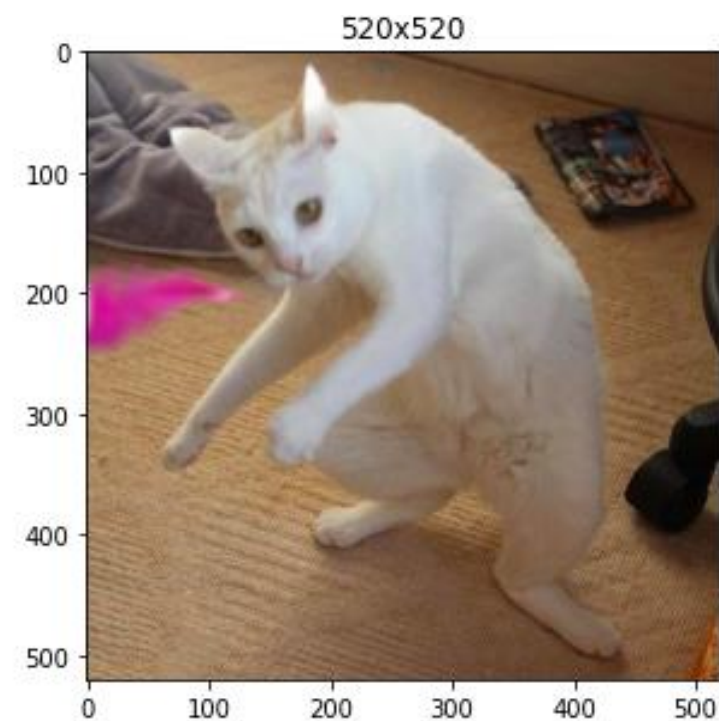
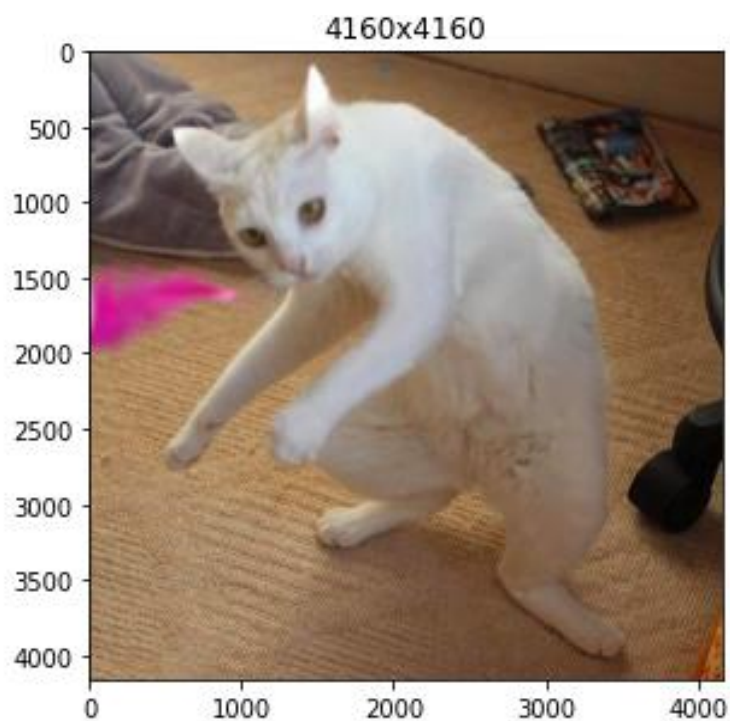
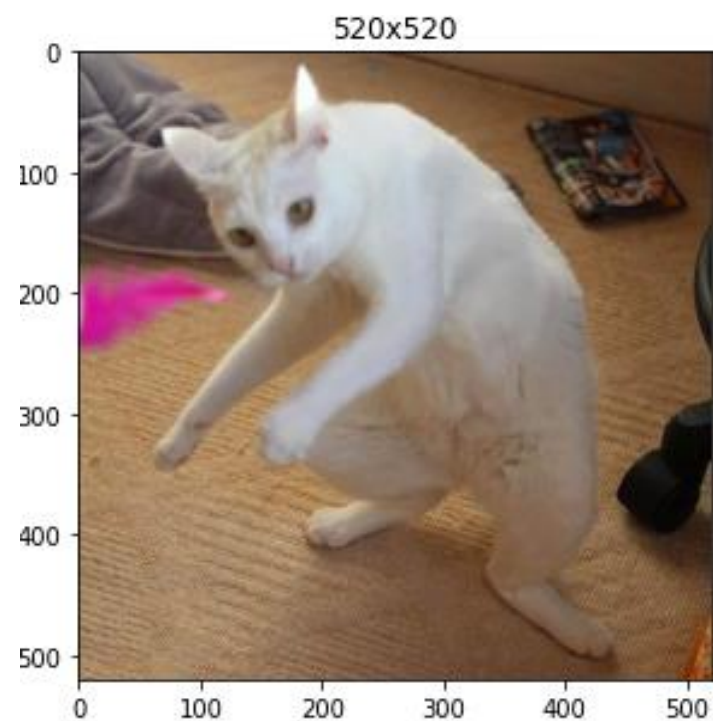
03

Variación de la resolución espacial

Reducción - Aumento



Aumento - Reducción



Variación de la resolución espacial

1	2
3	4



1	?	2	?
?	?	?	?
3	?	4	?
?	?	?	?



1	1	2	2
1	1	2	2
3	3	4	4
3	3	4	4



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Muchas gracias

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